This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

RESEARCH LIBRARIES
33 00100106 8

The UNIVERSAL LIBRARY:

Or, COMPLEAT

SUMMARY of SCIENCE.

CONTAINING

Above Sixty *Select Treatiſes.*

In Two Volumes.

I. *Of* Theology, Philoſophy, Metaphyſicks, Ethicks, OEconomy, Religion, Games uſed at Ancient Feſtivals, Coſmography, Elements, Geography, Hydrography, Travel, Government, Chronology, Hiſtory, Laws, Coins, Medals, Weights *and* Meaſures, Meteors, Rarities, Mankind in the Different Sexes of Men and Women, Phyſick, Chyrurgery, Chymiſtry, Cookery *and* Dyet.

II. *Of* Animals, Vegetables *and* Agriculture, Gems, Metals, Grammar *and* Languages, Hieroglyphicks, Poetry, Logick, Rhetorick, Muſick, Arithmetick, Geometry, Architecture, Surveying, Gauging, Dyalling, Navigation; The Military Art, Fortification, Gunnery, Aſtronomy, Aſtrology, Augury, Magick, Mathematical Magick, Dreams *and* Apparitions, Heraldry, Painting, Colours *and* Dying, Opticks, Angling, Fowling, Inventions, Ignorance in the Ancients, *and* Errors among the People.

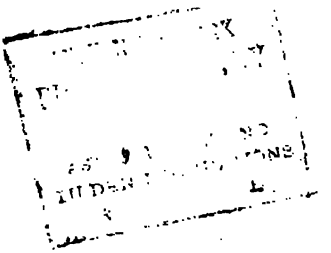
WITH

Divers *Secrets*, *Experiments* and *Curioſities* therein.

VOL. II.

To which is added a Copious Index *to both Volumes.*

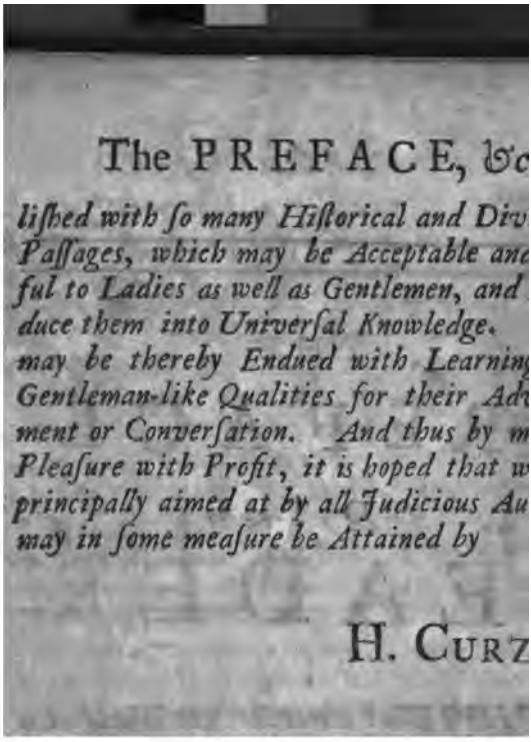
LONDON: Printed for George Sawbridge, at the *Three Flower-de-Lys* in *Little-Britain.* 1712.



THE PREFACE TO THE READER.

THIS Work comes into the World at a time when nothing but Drollery and Ridicule is thruſt upon the Age by ling Wits, who can only Canvaſs a Word, Clamour at a Phraſe in an Author, but ne- write any thing themſelves beyond the Bulk a Stitch'd Pamphlet; and theſe Heroſtra- *'s, who cannot get a Name by any Eminent rk of their own, ſeek it in the Deſtroying t of others. It is eaſier to be a* Critick *n an* Author. *But if he, who would Judge n Undertaking of this Nature, ſhould firſt y ſomething of the like kind (for Authors ld be Tryed by their Peers) we ſhould be of theſe Detracting Enemies.*

In the Treatiſes of this Volume are many cellent and Uncommon Collections in Sci- , which will Diſcover themſelves to the der in the Peruſal; And they are Embel-



The PREFACE, &c

liſhed with ſo many Hiſtorical and Div
Paſſages, which may be Acceptable an
ful to Ladies as well as Gentlemen, and
duce them into Univerſal Knowledge.
may be thereby Endued with Learnin
Gentleman-like Qualities for their Ad
ment or Converſation. And thus by m
Pleaſure with Profit, it is hoped that w
principally aimed at by all Judicious Au
may in ſome meaſure be Attained by

H. CURZ

THE LIBRARY OF LEARNING.

Of ANIMALS.

BRUTE ANIMALS are divided into ſuch as Fly in the Air, called Volatiles, or Swim in the Water, called Aquatiles; or go on the Earth, led Terreſtrials; or that creep, ſlide along, Vipers, Snakes, *&c.* or are altogether immove-e, and are called Reptils. Animals, how divided.

They are likewiſe diſtinguiſhed from the dif- Generation.
ence of their Generation, Parts, Actions, *&c.*
cordingly, ſome are Viviparous, which are
h as bring forth living Creatures; others,
iparous, which lay Eggs, out of which Ani-
ls are afterwards hatched; ſuch are the
codile, (of which it is wonderful, that from
Egg, no bigger than that of a Gooſe, it
ws to a Creature of Fifteen Cubits length)
Lizard, *Frogs*, *Tortoiſes*, and *Serpents*,
lay their Eggs in Horſe-dung, or near
s, or the like, becauſe they cannot hatch
themſelves. As to Parts, ſome have Parts.
, others Fins; ſome go on two Feet,
on four, called Quadrupeds; and others

want all theſe. As to Actions, or Ma
ſome are Wild, others Tame; ſome Dom
and Sociable, others delighting in Soli
ſome Stupid and Dull, others Quick and
ning. As to the Places where they Live,
are Fiery, as the *Salamander*; others
tick, or Watry, and others Terreſtrial;
live both on the Earth and Water, whic
therefore called Amphibious; ſuch is the
codile, *Otter*, *&c.* Some are Subterra
and live under Ground. *See the Collecti*
Rarities in Greſham *College.*

So far hath the Opinion concernin
Knowledge of Brute Animals prevailed a
Men, and ſo infix'd hath it been in
Minds, that they who dare think othe
(ſaith *Des Cartes*) and refuſe to Patron

little Pebbl[illegible] r Bills for fear of the *Eagles*, by that n[illegible] ...eping themſelves ſilent and ſafe. How the Induſtrious *Ants* build Cities with ſo much Deſign and Regularity, making Paths, Streets, Places for Aſſemblies, Granaries, ſtoring up all the Winter, *&c.* But it is evident that there are Actions proper to every Species of Beaſts, and that they are ſo determined to certain Operations, that they all deſign and perform the ſame thing without any difference. Every *Camel* flies from pure Streams, and hunts after troubled Waters, ſcraping the Ground with their Feet often to make the Water muddy. All *Conies* dig themſelves Burrows to lodge, and cover them with Sand, that they may not lie expoſed to the Rapines of the Ferrets. *Harts*, when ſhot with a Dart, preſently ſeek for the Herb *Dittany*, which eaſes the Pain, makes the Dart drop out, and Cures the Wound. The *Lyon* will find out the *Man* that hath ſhot him with an Arrow, tho' the Man was mix'd among a Crowd. All *Cats* will Lip, Skip, Lick, and are much delighted with the Root of *Valerian*. A *Hen*, at the ſight of a *Kite*, makes a Clacking, ſtill advancing her Voice to call her Chickens under her Wing. The Cauſe of which Actions can be referred to nothing elſe but Natural Inclination and Inſtinct, by which Animals are inſtigated to ſuch and ſuch Motions: So that this or that whole Brutal Species is carried with one Propenſion, and there is found the ſame Force and Impulſe in all of that Kind. So every *Hare* is alike fearful, and ſwift in Flight, doubling and turning in their Speed, to eſcape away; and every *Hound* hath a kind of Craft in following Wild Beaſts, and ſcenting the Way. All *Foxes* are ſhrewdly cun-

Ants. Camels. Conies. Harts. Lyons. Cats. Hen. Hares. Hounds. Foxes.

according to that familiar Sayi
they rather Suffer than Act.
like Operations are not to be a
perly to Cognition or Cogitatio
other Intelligence, which *Aver*
Errant; ſo as that the Corporea
follow the Conduct of Divine R
Works be looked upon as Dart
rected by a ſkilful Hand to the
the Dart it ſelf has no Apprehe
great *Des Cartes* in his Forty F
a certain Nobleman, ſaid thus.
" Ignorant *(ſaith he)* that ma
" performed by Brutes, far bett
" but this I do not in the lea
" ſince it helps to prove that
" them naturally, and as it we
" no otherwiſe than a Clock c
" declares the Hours, far be
" can find them out by our exa
" And doubtleſs, when *Swallow*
" the Spring-time, they act t
" manner of Clocks or Dials: A
" Bees perform, is of the ſame

they nev proceed ſo far as to cover them, which ſhews they act unthinking, and only by Inſtinct.

Animals obſerve each of them their certain and determinate Time of bringing forth; *Elephants* go Two Years; *Mares*, Eleven Months; *Camels*, Twelve Months; *Cowes*, Ten Months; *Sheep*, Five Months; *Bitches*, Nine Weeks; and *Birds* lay their Eggs after a ſet Time. Animals, how long go with Young.

For Purging the Belly, the *Dog* hath recourſe to Graſs; the *Hen* to the Wall-flower; the *Swallow* uſeth Celendine for clearing the Sight; the *Tortoiſe* uſeth Origany againſt all Poiſons; the *Hart*, wh wounded, uſeth Dittany; the *Ring-Dove* and *Swallow* make uſe of Lawrel to Cure any Diſtemper; and the *Dragon* ſeeketh for the Blood of the *Elephant* to aſſwage his Heat. Animals know how to Cure themſelves.

From Beaſts, Men have gathered divers excellent Secrets in Phyſick and Chirurgery; the *Hippotame*, or *Sea-Horſe*, hath taught 'em the Uſe and Neceſſity of Blood-letting; the *Roe-Buck*, the Healing of the Eyes; the *Black Stork*, called *Ibis*, and the *Herne* Clyſters; and our Diets have been taught us by the Lions. See *Pliny* in his *Natural Hiſtory*, and *Plutarch* in his Treatiſe *De Induſtria Animalium*. Beaſts have documented Men.

In the Perfection of the Senſes, Man is ſaid to excel in the Touch, tho' ſome affirm the Spider to have the Prerogative herein. *Apes* enjoy the Senſe of Taſting above all other Creatures. *Boars* are the moſt perfect in Hearing, tho' ſome attribute it to the Cock. *Vultures* are certainly the moſt excellent in Smelling, having ſuch Perfection herein, as to ſmell a dead Car s ſome Miles off; tho' Hounds enjoy a great Excellence in this Senſe: And What Beaſts enjoy the Senſes in greateſt Perfection.

Eagles have the moſt piercing Sight, f
they fly ſo high as to be out of the ſight
yet do they ſee the Fiſh ſwim in the O
ea- Change of Weather is preſaged by
by Creatures, as the *Heron* flies high again
the *Kite* flies high againſt fair Weather;
Hogs draw in their Quils againſt ſtorm
ther; *Halcyons* betake themſelves t
Neſts againſt fair Weather; *Frogs* Cr
Swine routing in Hay, *Cowes* and *Oxe*
ing up their Snouts towards the Sk
ſnuffing, *Turkey-Cocks* Crying, preſag
from the Humidity of the Air; alſo
Mole, *Bull*, *Ram*, *Dolphin*, *Duck*, *C*
give certain preſages of the change
ther.

Horſes, Dogs, Baboons, Elephants, &c.

...ne another ... *Eels* accompany much with *water-snake*;

There is also a gre... ntipathy between some Animals; almost ... sorts of Creatures dread and hate the L..., the *Lion* fears the *Cock*; the *Hen* fears and ... s the *Kite*; *Sheep* fear the *Wolf*; *Elephants* can't endure the Grunt of *Swine*, sight of a *Mouse*, or any Red Colour, which much enrages them; a *Horse* is disturbed at the sight of a *Camel*; *Spiders* and *Toads* disaffect one another; *Cats* are envied by *Dogs*; *Mice* abhor the *Cat*; the *Weesel* is at Enmity with the *Toad*; the *Dragon* with the *Elephant*, which have often fought together; the *Pheasant* plagues th... , when she pitches between his Horns and ... ks him; the *Hart*, by Breathing into *Ser...* 's Dens forces 'em out, and eats th...m; ... *Crocodile* is envied, nay, often killed by the *Ichneumon*, or *Indian-Rat*, a little Creature, that while the *Crocodile* sleeps, steals to his Mouth, and running into his Body, eats and gnaws his Entrails 'till he dies; the *Hawk* is feared by the *Pidgeon*, &c. The reason of which is, That by the sight of such Objects, certain Impressions are transmitted thro' the Fibres of the Nerves into the Brain, which convey the Animal Spirits into the Nerves; which, upon the Blood, being rarify'd after another manner than is usual, sends into the Brain those Spirits which are adapted to the Cherishing and Fomenting of Terror. And whereas, from the Bodies of all Creatures there proceed *Effluvium's*, or Spirituous Steams, some disagreeing with others, incites Hatred and Anger in each other.

Antipathy or Hatred between Animals.

Of the Crocodile, see in *Africa* in our Geography.

Antipathy defined.

Strange Animals, &c. See among Rarities in *Gresham* College, &c.

There is also great Antipathies between *Fishes*; th... *Myron* and the *Conque*, the *Mullet* and *Sea-Wolf*, gnaw one another's Tails; the

Of sundry Fishes

Torpedo is a *Fiſh* that ſends a
Line to the hand of the Angler
and afflicts him; the *Whale*
Fiſh; and *Dolphin*, tho' nothing
as the *Whale*, deſerves more o
tion; the firſt yielding *Oil* a
and *Sperma Ceti*; but the latter
of Man, and greatly delights i
much as to have carried Muſic
Backs, and brought them ſafe t
ſtorians affirm. There are infinit
ſome having reſemblance of Mer
even Biſhops with Mitres, alſo
bearing the reſemblance of *Ho*
almoſt every thing that is upon
which the *Remora*, or *Sword-Fiſ*
that ſtops a Ship under ſail, as
firmed in their Writings.

ſects. The Variety of *Inſects* is v
reſpect to their Food, the Quali
dies, and the Place in which th
the Place, Hairy and Red *W*
rated in the Snow; *Fire-Flies*,
the Fire; in the S , the *Sea-*

The Ca[illegible]ſer, breeds *Bees*; the Skeleton o[illegible]an *Aſs*, h[illegible]aming *Bees* or *Drones*; the Body of a *Mule*, l[illegible]ts; the Corps of a *Horſe*, *Waſps*; and ou[illegible] Fleſh, breeds *Maggots*, *Flies*, &c.

He who is deſirous to read Voluminous Accounts of all ſorts of *Animals*, may have Recourſe to theſe

AUTHORS,

Pliny's Natural Hiſtory, Collected out of Two Thouſand Authors, *Geſner De Animalibus*, ——*Hiſtory of Birds*, ——*De Quadrupedibus*, ——*De Piſcibus*, *Æli*[illegible] *Animalibus*, *Plutarch De Induſtria Ani*[illegible], *Ariſtotle De Natura Animalium*, *Sen*[illegible]*s Natural Queſtions*, *Belon's Singularities*. See alſo *Solin*, *Gellius*, *Rondoletius*, *Opian*, and others.

Of VEGETABLES and AGRICULTURE.

IN the Beginning of the Creation, we doubt not but there was a Power communicated to the Earth, of producing great Variety of *Vegetables*, which are ſtill to be found in many Countries: For by an Innate Virtue therein, it ſtill produceth many ſorts of *Plants* without the Aſſiſtance or Art of the Huſbandman. So *Porta* and the Lord *Verulam* aſſure us, That Earth, dug up from the Foundations of Houſes, *&c.* and put into Pots, after a ſet Time, or Seaſon, produce ſeveral ſorts of *Herbs*; a[illegible] that if Earth be taken up about an Ell de[illegible], 'twill be fruitful the firſt Year; but

That *Noah* tilled the Earth. See *Gen.* 9. 20.

Purſlain, Houſeleek, Pennyroyal, *&c.* ſometimes produced without ſowing Seeds.

The Simple Parts of a *Plant* Nerves, Wind-pipe, and the Fle pound, the Root, the Stem, Pith, the Branches, Leaves, Fruits. Now to declare theſe per Functions, know,

le parts lant.

The Juice is the liquid part c fuſed through the Subſtance, whe is nouriſhed.

The Nerves are thoſe Fibre which give Strength to the ſof *Plant*, and by which the Ali aſcends.

The *Trachea*, or Wind-pipe, i fel, conſiſting of little thin Plate the Scales of a Fiſh, or writh together.

ound Plant.

The Fleſh of a *Plant* is thick, ſoft, and outwardly covered wi

The Root is the loweſt part, Ground, thro' the Paſſages and the Alimentary Juice being m is driven upwards.

The Stock, Stem, Trunk, o

The Pith [illegible] inc[illegible], I [illegible] *&c.* are things well [illegible] ſo much Reaſon, as to judge of [illegible] by ſee.

Plants, how propagated by Seed.

Plants are to be pro[illegible] by Seed, or a Sprig cut or plucked off from the Stock, and ſet into the Ground, or by Graffing. Of thoſe propagated by Seed, *Note*, before any Seeds are committed to the Earth, the Soil muſt be duly prepared, either by turning up by the Plough, digging with a Spade, cutting with a Weeding-hook, or breaking up [illegible]ith a Pick-axe; and the Clods are to be br[illegible] with a Harrow or Rake. Nature directs us to the moſt proper Seed-time, *viz.* when the Seeds have attained their full Growth and Maturity, or when by opening their Huſks th[illegible] fall to the Ground. Now for underſtanding the firſt Principles of Vi Growth of every *Plant* raiſed by Seed, *Note*, that the Seeds, being ſown in the Earth, after a while meeting with a due Moiſture and moderate Heat, begin to ſwell and diſtend their Skins, or Huſks; and having at laſt broke them, the ſame Cauſes ſtill continuing, afford them new Matter; and the Buds, or firſt beginning of the *Plants* appear, which by thin Fibres, ſpreading themſelves thro' the Pores of Earth, and the parts of them preſſing upon them, muſt needs make them grow hard, and thus the Roots get them Formation. The Matter thus digeſted into their Roots, being recruited by new Incomes of Heat, and dilated by the ſame mounting upwards towards Air, ſpring up, and grow ſtill higher and higher, 'till they arrive to their Natural Proportion and Product.

Propagation by Sprigs.

The way of Propagating *Plants* by Sprigs or Slips, is to cut a Sprig, or pluck it off, or whilſt it yet ſticks to its Mother, thruſt it into, and cover it with Earth 'till it hath taken Root.

Theſe

new Twigs muſt be ſhaded w

gation by affing. The Art of *Graffing* conſi the Application of a Graff, o Stock (or that of another Tr that the inner Bark and W and Graff exactly anſwer to the Juice may readily and fre Stock to the Graff, or Bud.

bliation. chief ways of Graffing, 1. Bark, when the Graff is pu Wood and the Bark, and is

f Cleft. Thread or ſmall Cord. 2. Cleft made in the Stock, ſo a the one may be join'd with other, and then the Slit muſt Clay, and bound up with th

culation. 3. By Inoculation, wherein th ed to that of the Stock, (whe tity of the Bark is taken) th Eyes of the one may exact Buds and Eyes of the other. ways of Graffing; as when a are ſo cloſed, that no mark of and it is afterwards plaiſtere

cauſe of the [illegible] Texture of its Strings it will not be [illegible] to bear the hardneſs of the Stock into which it is graffed; nor muſt it be too dry, for then it will not unite. 2. That the Graff be from a fruitful and good Tree, and as near as may be of the ſame kind. 3. That it be without any delay Graffed, leſt Air entring into the Pores, ſhould hinder their growing into one. 4. That the Stock be ſlit not too deep, which will hinder the cloſing of it up again. 5. That the Graff be cut ſo that the Wood may join with the Wood, and the Bark of it with the Bark of the Stock. 6. That the Stock hath ſtood in the Ground ſome Months. 7. The top of the Scion is to be cut off, that by beating back the Juice it may ſwell and grow bigger. 8. That when the Graff is put into the Slit, the place muſt be paſted about with Wax and Gum, or with Clay and Moſs, to keep out all external Moiſture. 9. That a fit Seaſon of the Year be obſerved, that is, after the Winter Solſtice, and after the blowing of the Wind from the Weſt, which is, from the Seventh of *February* to the Spring Solſtice. 10. That ſome Trees are altogether unfit for Graffing, as the Oak, Fir-Tree, and other Reſiniferous Trees; becauſe the Oak, by reaſon of its hardneſs, will not be ſlit eaſily, and when ſlit will not grow together again; and Reſiniferous Trees, becauſe of their clammy Liquor, have their Pores ſo obſtructed, that the Juice cannot be readily conveyed to the Graff. 11. That the parts of the Scion may retain the ſame Situation when graffed on the Stock, as it had before it was cut off, as if it firſt grew, leaning to the South; in Graffing, it muſt likewiſe be turned that way.

Tournior tells us that in the *Indies*, near *Barach*, a Mountebank, of a dry Stick, in leſs than half an Hour, made a Tree of four or five Foot high, which did bear Leaves and Flowers.

Before

again, let it reſt, to imbibe it
or Sandy Ground, are neither g
beſt, which ſeems fat in hand
in Colour, and eaſily crumbl
ing or ſtirring it with your Fi
nerally all Grounds that are
are good for Gardens. Stiff
Places muſt be amended by l
and ſhould be caſt three Foo
or Watry Ground; ſhould ha
ly or Sandy Ground mix'd wit
caſt round about to drain th
older the Dung for your Grou
and the Garden, or Ground,
dered and dreſſed each Autu
Dig and Manure the Ground
you would ſow in Spring; a
ſuch Ground you intend to ſo

of Sowing. In ſowing, Seeds grow beſ
ſown upon moderate warm D
Spinage, Succory, Garlick, Le
ſown in Autumn, will live a
worts, Rocket, Creſſes, Co
Radiſhes, Parſnips, Carots,

Thrickmad[illegible] a[illegible] other tender Herbs, as alſo Art[illegible], [illegible]lown in the Spring; and for the moſt part al[illegible], thoſe of *March* and *April*, grow more early than thoſe of *February*, according to the diverſ[illegible] of the Time. But for better knowing th[illegible] proper Buſineſs of every Month throughout the Year, we may add theſe neceſſary

Directions for the Husbandman.

In JANUARY, he may cut down what Wood and Timber he hath, and let it be at the Moon's Decreaſing; He may Dung his Fruit-Trees (but take care the Dung touch not the Roots) in fair Weather; He may Cut and Prune his Vines, and cut off ſuperfluous Boughs of Fruit-Trees. In this Month he may ſow the Seeds of Aſparagus, Cole-worts, Spinage, Lettice, Parſnips, and Radiſhes. *January.* Directions for the Husbandman.

In FEBRUARY, at the New of the Moon, he may tranſplant Vines of two or three Years old; prepare his Garden-Ground to ſow Herbs; give the Earth her ſecond Earing for ſowing of Beans, Peas, Barley, Oats, Hemp; at the time of the New Moon, he may ſow the Seeds of Thyme, Garlick, Burrage, Bugloſs, Marjoram, Purſlain, Radiſh, Roſemary, Sorrel, and Double Marygolds; at the Full of the Moon, he may ſow the Seeds of Annis, muſked Violets, Blites, Skirworts, White-Succory, Fennel, Parſley; at the Old Moon, Cole-Cabal, White-Cole, Green-Cole, Cucumbers, Hartſhorn, Spinage, Cabbage, Lettice, Melons, Onions, Parſnips, Burnets, Leeks. *February.*

In MARCH, at the beginning, he may ſow Line, Woad, Oats, Barley, Peas, Vetches, and ſuch kind of Pulſe; alſo his Nurſeries with Kernels *March.*

forth of his Houſe, removing t
Foot to Foot, taking away ſuch
forth towards the Surface of t
ſuperfluous Boughs; He may
Vines, and ſow Barley 'till
Tenth of *May*; He may, at t
ſow the Seeds of Marjoram, Th
at Full Moon, Pine Apples;
Artichoaks, Cabbage-Cole, Gil
Parſnips.

ay. In MAY, he may water th
planted, weed the Corn, free th
Vines from the Earth about
Heat may not hurt them, and
the tender Branches and green
bear no Fruit; at the Old Moo
the Seeds of the Bleſſed Thiſtle.

ne. In JUNE, clean the Threſ
down the Meadows, Make and
and crop the Vines; at the Ne
ſow Gourds and Radiſhes; at
Cucumbers, Melons, Parſnips.

In AUGUST, he may gather thoſe Fruits he would preſerve; take away the Leaves from about the Grapes (are backward) that they may receive the Sun's Heat better; at Full Moon, may ſow the Seeds of White-Succory. *Auguſt.*

In SEPTEMBER, may give the Fallows the laſt Earth; ſow the Wheat, Maſtlin, Rye, and the like Corn; cut down late Meadow Grounds to have the After-Crop, and may gather Stubble for his Fuel all the Year. *September.*

In OCTOBER, he may make his Wines and Cyders, and Veſſel them up; may Houſe the Orange, Citron, and Mirtle-Trees, and make what Honey and Wax he hath. *October.*

In NOVEMBER, he may Couch the Wines and Cyders in the Cellar, gather Acorns for the Swine, and ſuch Garden-Fruit as will keep for himſelf; lay bare the Roots of Artichoaks, and cover them again very well, that Froſt may not periſh them. *November.*

In DECEMBER, he may drain out what ſtanding Rain-waters there be, and make it run thro' the old Meadows; He may Dung them, if need be, and make Proviſion of Dung to Manure the Fallows that are broke up and Till'd; He may cover the Roots of Trees and Herbs with Dung, which are intended to be kept until the Spring, and may lop Willows, Poplars, Saplin, and other Trees. *December.*

Note, So ſoon as the Ground is full of Seeds in all Places, if it be dry, to water it, uſing therefore good Spring-water that hath ſtood a little in the Sun, for by Dryneſs the Seed will be hindred from Sprouting. General Rules in Sowing and Planting, &c.

Theſe Seeds following thrive beſt, being ſet new, *viz.* Leeks, Cucumbers, and Onions;

Change.

Seeds muſt be gathered in fair
the Wain of the Moon; and ar
in Bags of Leather, Boxes of
ſels of Earth; but Seeds of
and Chibols, keep beſt within t

Vegetables, with Bubbous
ſuch as conſiſt of Coats, or C
one another, as Onions, Aloes
worth, Saffron, Squills, Leeks,
and grow, tho' taken out of t
hung up (in the Air) within D

ſtructive lants. Plants will grow faſter, b
water'd with hot Water; Oy
Cold, or Salt-water, is very
them; and a deep Wound kill
cept the Firr, Pine, and Tu
thrive thereby.

Democritus obſerved, that ſtr
ſhorter Liv'd than crooked one
but the Palm, Firr, and Cy
grow ſtreight, are very laſting.

Thoſe Trees that delight in
are commonly to be ſet up

Plants. Heat is alſo neceſſary to the Nutrition of Plants and the Lord *Verulam* ſaith, Kernels, or Seeds laid about the Root of a Plant of the ſame kind, makes it come earlier and proſper better, becauſe the Kernels draw out of the Earth, Juice fit to Nouriſh it, and make Trees themſelves; which afterwards (ere they can grow up) the Root of the great one, by Strength, draweth away from the Kernels, as great Fiſh devour the leſs. He alſo obſerves, all Grains and Roots nouriſh Men more than the Leaves.

Degeneration of Plants.

Plants degenerate, when Tranſplanted from a fruitful Place; and again, ſome Venomous Plants being removed, become wholeſome to Eat. So the Peach-Tree, formerly growing in *Perſia*, were of a Poyſonous Nature, but being Tranſplanted hither, bear a delicious, and nowiſe unwholſome Fruit, (unleſs eaten to Exceſs.) Sometimes Things degenerate of themſelves; thus the Fig-Tree degenerates into the Wild Fig-Tree, Barley into Oats, Wheat into Darnel, ſometimes into Spelt, and Spelt into Wheat, Baſil into Wild [illegible]yme, Turnips into Rhadiſh, (as *Sennertus* aſſures us) Water-mint into Spear-mint, the Black Vine into Briony.

Diverſity of Plants.

The diverſity of Plants is aſſignable, either to the Soil whence they grow, or to the Pores or Chanels thro' which their Alimentary Juice is conveyed, or to their Structure or Figure, or to the Fruits they bear, or to their differing Qualities, or laſtly, to the Changes and Alterations to which they are Obnoxious. Some Plants are called *Glandiferous*, or Acorn-bearers, ſuch are the Beech, Oak, Cork, and Cheſnut-Tree; ſome *Coniferous*, from bearing Fruit like a Cone or Pyramid, ſuch are Cædars, Cypreſs, and the Firr, tho' Firr is reckoned ſome-

a moſt fragrant Odour, and th
golden Colour. Of Fruit-bearin
are *Nuciferous*, or Nut-bearers, a
Almond-Tree, whoſe Fruit have
others *Bacciferous*, or Berry-be
Plumb, Olive, Mulberry, and
others *Siliquiferous*, or Cod-bear
Tamarinds, *&c.* whoſe Fruit is
Cods, or Huſks, or a Juicy Shell
Figure.

Vegeta. Some Vegetables have a wa
and a Power to dilate Bodies,
Cabbage, Capers, Cinnamon, R
Vegeta. Rocket, *&c.* others have a Pow
Bodies, as Barley, Cucumbers,
Vegetables that are Cold in the
are Roſes, Violet[illegible]allows, B
&c. in the ſecond, are Sorrel,
tane, Gourds, Oranges, *&c.* in
Opium, Poppey, Purſlain, *&c.*
Meconium, or the Juice of the
py and Hemlock, which latte
tream Coldneſs, ſtops the Circu
Blood. ıd ſo extinguiſheth Life

Styptick Herbs, or ſuch as aſſwage Pain, are Marſh-mallows; Wheat, the Root of White-Lilies, St. *John's* Wort, Maſtick, Barley-Flower, and Birthwort, do reſtore the Fleſh in Wounds, as alſo Plantain and Pomegranate-Shells by their glutinating Virtue. Horſe-Tail is a powerful Aſtringent. Aſtringent Herb

Vomitives, or ſuch as evacute Humours by the Mouth, are Coloquintida, Broom-Leaves, Nux Vomica, the middle Bark of Walnut-Trees, *&c.* Vomitive Plants.

Plants that Kill, are ſome, by reaſon of their Cold, as Hemlock, which makes Men go mad, or ſenſeleſs; and Scammony, which draws the Windpipe together, and Choaks 'em; others are Hot, as Napellus, a kind of Wolf's Bane, which burns the Body; Hellebore kills by extream Vomiting; Aconite is a ſtrong Poyſon; Crowfoot kills Men with Convulſive Strains, as if they were Laughing. Poyſonous Plants

Alexipharmacal, or Antidotal Herbs, are ſuch as are good againſt Poyſon, as Purſlain cures the Bite of Serpents; Endive, that of Spiders; Wine will reſiſt the poyſonous Hemlock; Angelica reſiſts Poyſon, as alſo Mugwort. Antidotal Herbs.

For killing Worms, Wormwood, Bitter-Almond, Hartſhorn philoſophically calcined, *&c.*

For purging Choller, Rheubarb, Scammony, Senna, Polypody of the Oak, Dodder or Thyme, Hellebore, *&c.* Black Choler, or Melancholy, is purged by Carthanius, or Wild Saffron, Agarick, Herb-Mercury, Spurge, *&c.* Medicinal Herbs.

Herbs that encreaſe Milk, are Fennel, Polymountain, Milkwort, *&c.*

Beans, Aſparagus, the Root Satyrion, Parſnips, Rice, Carrot-Seeds, *&c.* provoke Luſt and encreaſe Seed, as alſo Pinenuts.

endure each other; nor the Oi
more than the Oak the Nut-Tre
Tree, the Colewort, and the
the Vine, are at Variance, and
thy, which is caused by Robbi
of sufficient Aliment, because n
and the same kind of Juice. M
Cabbage, abhor Water, Gourds,

Willow-wort drives away tl
tany casts forth Darts, Moon-
Shackles, Wood-pecker draweth
the Holes in Trees, Bettony
ship, green Saffron bound roun
lieves Drunkenness; and so gr
Herbs, that the *Thessalonian* Sor
of many to effect their Sorcerie
ed with the Herb *Adamantis*,
Strength. A Twig of a Wild I
the Neck of a Mad Bull, ma
the like is attributed to the H
The Ossifraga of *Norway* snap
Cattle that tread upon it.

Of Herbs may be made the
which roasts Fowls without eve
A piece of Pompion put in

of their
pathy.

us Pro-
Plants.

Bart.
third
e First

lt Quali-
s.
r of the

The Live, or Senſible Plant, by ſome termed Chaſte, or Shamefaced, (the *Arabians* and *Perſians* call it *Suluc* or *Saluc)* is no ſooner touched with the Hand, but it retires back, and ſtarting, contracts it ſelf; for which, Reaſons are given by *Blome*, in the Second Part of the Hiſtory of Nature, *Part* VII. Chap. V. The Senſible Plant.

Some Hiſtorians tell us of a Tree called *Pudefetana*, which cannot endure the Breath of Man; and of a Tree in *Japan*, that hath Sympathy with Iron; alſo of Wild Penny-Royal, in *Virginia*, which, if but held half an Hour to the Noſtrils of a Rattle-Snake, (the Leaves being bruiſed) infallibly Kills it. Another Senſible Plant. The Kill Snake.

A Man that hath dip'd his Hand in the Juice of the Root of Water-Mallows, Purſlain, and Herb-Mercury, may put it into melted Lead without harm; which proceeds from the Natural Coldneſs of theſe Juices, and their clammy Thickneſs, covering the Hand with a Skin as it were. The Numb Herb

Surius and *Oderic*, in their memorable Matters, in the Year 1504. ſay, That in the *Caſpian* Hills and Iſle of *Tartaria*, near *Cazan*, are Plants found reſembling new-born Lambs with Fleſh, like the Feet and Tail of Creviſes; which Plants graze, and droop and die away when Graſs faileth. The Lamb Plant

Pliny writes of the Sleeping Tree; and ſome write there are Herbs which reſiſt the Fire; and that Flax made thereof, cometh out of the Fire more white and unconſum'd; which *Tho. Porcachi* ſaith he ſaw experienced at *Venice*, Anno 1566. The Sleeping Tree. The Salamand Herb.

Heylin in his Deſcription of *Peru*, maketh mention of a Fig-Tree, of which the North Part, which looks towards the Mountains, bringeth forth Fruit in Summer; the South The ever bear Tree.

ie end of ick.

loving Tree. Palm-Trees grow in *Ja-* muſt have anner of re at the out grow if ſet in a full of Fi- of Iron and and; and Branches off, if they led on, grow as well raffed.

Kind of which burnt is a go inward Nut like Butter, Savo of which Fruit they alſo mal gar, Oil, Wine, and Vinegar.

Hiſtorians write, the Fem ways bows, and endeavou Male; which, if ſhe cann away and dies.

Read more of this in dive liſhed by *Dioſcorides*, *Mat* *Fuchſius*, *Pena*, *Dodonæus*, *I* *Cluſius*, and many others. (cannot omit, which is relat Shepherd, who once falling d Buſh, or Plum-Tree, forgot Thorn of it, which ſtuck in of which grew afterwards a See *Wanley*'s Wonders.

Some Curioſities in Ag

Tartars hate alnure, and at Chriſti- r feeding Tops of

If the Top of a Roſe-Tree its Budding, be cut off, it wi forth Roſes again about *Nove*

ſe following

AUTHORS,

Of the Ancients, *Dioſcorides*, *Matthiolus*, *llius*, *Rembert*, *Dodonæus*, *Foſchius*, *Pliny*, *a*, *Dalechamp*'s Great Herbal, *Cluſius*'s Her-, and Hiſtory of Simples, *Weſtmacot*'s *Ve-bilium Sacra*, *Morriſon*'s *Plantarum Hiſtoriæ*, *nardis*'s Hiſtory of Simples, *Langford* of it Trees, *Evelyn* of Salads.

He who would know more of Agriculture, him read theſe

AUTHORS,

olumellas's Agriculture, *Syſtema Agricultura*, *nteney*'s Compleat Gardiner, *Platt*'s Garden *Eden*, *Evelyn*'s *Kalendarium Hortenſe*, *Jardi-r Francois qui enſeigne a Cultiver les Arbres*, nch; *Stobæus*'s Diſcourſe of Huſbandry, itome of Huſbandry, *Ch. Eſtienne*'s Coun-r Houſe.

nerated not of a Company
together, as the common St
certain fluid Matter, whicl
one Grain, provided there
it as to make ſome ſenſible
is ſufficient for a pellucid
happen that any metalline I
with the Matter, it cauſeth
of the Light that paſſeth tl
it produceth in us the Senſe
and inſtead of a *Diamond* or
have *Saphires*, *Jaſpars*, *Aga*
And therefore Gems or Pr
divided into Tranſparent an

Diamond. *Diamond*, or *Adamant*, is
and moſt hard, yet not Pro
mer, or Fire, as has been aſ
be broke by the Blood of a
firm: It differs from the (
cloſer Connexity of Parts.
Enquiry into Vulgar Errors,
great deal about the *Diamon*

Beryl. The *Beryl* hath a great
Chryſtal.

ie *Topaz* is near the *Hyacinth*, tho' ſome have it of a Green Colour. Topaz.

ie *Turcois* is of a Sky Colour mix'd with n. Turcois.

he *Amethiſt* is ſoft as *Chryſtal*, and is of a let Purple Colour. Amethiſt.

he *Morion* is a Gem of a very Black Co- Morion.

he *Ruby* takes its Name from its glorious Colour. Ruby.

he *Oynx* is of the Colour of the Nail on a 's Fingers, thro' which run Veins of the ur of *Jaſpar*. Oynx.

he *Sapphire*, hardeſt next the *Diamond*, is of y Colour. Sapphire.

he *Jaſpar* is a Green Stone with mixture loody Spots. Jaſpar.

he *Granat* is of a Red Colour mix'd with ow. Granat.

he *Agate* admits of ſeveral Colours, as te, Black, and other variated Stroaks in midſt of it. Several come from the *In-* Agate.

he *Opal* is of various Colours. Opal.

he *Sardonyx* is a Precious Stone. Sardonyx.

here are other Stones reckoned Precious, as *Bezoar*, *Pearls*, *Chelidonius*, or the *Swallow-*, &c. the firſt found in the Stomach of a t, called *Pezaine*; the ſecond, in the Shells *yſters* and *Muſcles*, of a faint light Co-, and without Tranſparence. Bezoar, Pearls, The cleareſt and biggeſt are found at the Iſle of *Baharem*. See at the end of Angling.

ral is of a Mineral Nature, and a kind of ious Stone. Coral.

hryſtal is Hexangular, or ſix corner'd; *raulds* are twelve corner'd, *Diamonds* and ies eight corner'd, *&c.*

Mr. *Boyle* maketh mention of a *Turcois* h frequently changed Colour, ſeveral Spots A ſtrange Turcois.

Stone which caſt into freſh
but if put into Spirit of V
is moved. There are Veins
Novigentum, on the River S
the Shape of Plants and Tre
are Quarries of Stone, the
to be changed into Wood.
ſerved the Vaniſhing of a
We read of the Stone *Corcit*
in the Palm of the Hand,
Pulſation, or beating therein

The *Diamond* belonging t
of *Tuſcany*, is Celebrated for
haps in the World, weighing
Eight Carats.

See Gems and Stones, men
talogue of Rarities in *Greſha*

hyſical Vertue
ome Precious
es.

Very conſiderable Phyſica
tributed to ſome precious Sto
only outward Hurts, but ma
ward Diſeaſes are cured.
Powder of *Diamonds* hath be
any Prejudice to Health; nay
ſwallowed (without any ha

ier, by means of Steams, or Exhalations, the Intervals between them and joining together; ſuch are *Marble*, *Flints*, *Touch-Whetſtone*, *Pumiceſtone*, *Sandſtone*, *Talck*, *Stone*, &c. And alſo Stones in the Bladder, ins of Man. Of all which, I will only of that Rarity,

e *Loadſtone*, which tho' reckon'd amongſt *on Stones*, yet doth not the Earth pro- any Thing more wonderful: It is digged f the ſame Mines where the Iron is, and *rtus* ſaith the beſt Iron is got out of the *tone*. Its Vertues are, 1. That being in e Poſition without any thing to hinder, it s it ſelf to the Poles of the World. 2. It s Iron, or another Magnet, to it ſelf, and imes alſo repels the ſame. 3. By a h, it communicates to the Iron, as well 'ertue it hath of Pointing to the Poles of World, as that whereby it draws Iron. by its Magnetical Vertue, may Ten or lve Needles of Iron, (but Steel is better) e like Number of Buckles, be made to together like a Chain; but thoſe that are rmoſt, are weaker in their Attractive ue than the other. A *Loadſtone* throughly d, loſeth its Force to draw Iron. See *rus*, *Pliny*, Mr. *Boyle*, *Des Cartes*, &c. lſo hereafter, Iron in the next Treatiſe of *TALS*. The Loadſtone.

nd here I am unwilling to Omit thoſe rare e Monuments, or Wonders, lie diſperſed ſeveral Places in *England*. They are ; 1. *Stone-Henge* (the *Chorea Gigantum* of Antients) on *Salisbury* Plain in *Wiltſhire*, e of which ſeem hanging, as if they would ach Moment, yet cannot be ſtirred; and y this marvellous Property (as ſaid) that tell Stone-Henge, and other wondrous Stone Rarities in *England*.

fordſhire. 5. The Stones near
thumberland. 6. Thoſe Stones
Devonſhire. 7. Thoſe upon t
in *Weſtmoreland.* 8. Thoſe at
ton-Drew in *Somerſetſhire.*
Burrow-Brig in *Yorkſhire*; and
ſenbury in *Somerſetſhire*, are
Pyramids, mentioned by *Wi*
bury, with imperfect Inſcriptio

AUTHOR

Morboldus, or *Marbodeus*, a
and Precious Stones, in He
flouriſh'd about *Anno* 1050.

Of METAL

what. METALS are Bodies
Earth, heavy, hard,
Fire; hid in the inward P
and there generated by the

rt has not as yet found any means
y to ſeparate them. To Metals, ſome
ercury, or *Quickſilver*, which may be
by Faſting Spittle, or made ſolid by
held over the Fumes of Molten *Lead*, &c.
ſilver, unleſs contained in ſome Veſſel,
way like Water.
Metals, except *Quickſilver*, are Malle-

Quickſilver, how killed.

es of Metals are chiefly found under
ains, and eſpecially in thoſe Parts that
he Eaſt, or South Sun, tho' Metals are
mes found in Rivers, as *Tagus*, *Ganges*,
s, &c. which abound with *Sand-gold* Duſt,
icles of *Gold* or *Silver*, which are gathered
elted into Ingots. Yet Water cannot ge-
Metals, but only running thro' Grounds
abound with Metalick Veins, carry
Particles along with 'em. See my Lord
Opinion hereupon, in our Treatiſe of
ORS.

Gold-ſanded Rivers.

is probable that the firſt finding out of
s in Mines, was owing to the Conflagra-
f Woods. So *Ariſtotle* tells of Shepherds,
in, who ſetting a Wood on Fire, found
n *Silver* run down in the ſame Place.

Mines, how probably firſt diſcovered.

INVENTIONS.

e Ground which is Rich in Mines, is ge-
y Barren, affording noxious Steams and
ura, prejudicial to the Health of the In-
nts, and the Growth of all Plants. See
end of *Air* in *ELEMENTS*, and *Ca-*
s (among the Diſeaſes) in *PHYSICK*.

The Ground Rich in Metals, Barren in Productions.

OLD is the richeſt and heavieſt Metal,
Compoſed of a moſt Pure and Red ſub-
phur, and pure *Mercury*, Red, and not
ing, and conſiſts of ſuch thin Particles,
thoſe ſo firmly woven together, that they
cannot

Gold.

to be recovered again.

Aqua Regia, yet is it no
for if to that Solution y
Oyl of *Tartar*, and com
will fall to the bottom,
Quantity, without the l
would it loſe, if kept
Neither can any Body b

Its vaſt Extenſity.

ſo much as *Gold*; one
Pliny, may be beat out
and Fifty Leaves, each
ſquare. Some tell us,
beaten out to cover Ten
the Wiredrawers will gi
that One Ounce will affo
Hundred Thirty Thou

Its Properties.

Foot long. *Gold* is not
being heated or melted
longer than any other M
is Ten times heavier tha
minans, ſee in *CHYMI*

Silver.

SILVER is next to G

Its Properties.

tho' it doth ſtrangely re
ing, yet it is eaſily exte
der the Hammer, conſiſt

forms of Fiſhes, Birds, *&c.* which by chance ſometimes find. There are Two ſorts of *Silver*, one pure, needing not to be Purified; the other harſh and rude, of the Colour of Lead, or Red, Black, or Aſhy. *Silver* is a very ductil Metal, a piece of it being covered with Leaves of *Gold*, and then drawn into Thread never ſo fine, the *Gold* will be extended with it, there being no part of the *Silver* Thread to be ſeen which is not gilt. *Silver* Poliſhed, loſeth its Natural Whiteneſs, and becomes Bright and Shining. This Metal is eaſily diſſolved in Spirit of *Nitre*, or *Aqua fortis*; but not in *Aqua Regalis*, which diſſolves Gold. Silver Coins. See in *Coins*.

TIN, Chymiſts look upon as a middle thing between *Silver* and *Lead*, and call it the Defender of Metals, by reaſon Veſſels Tin'd over, reſiſt the Fire better than others; it is compoſed in the Surface thereof of White *Quickſilver*, and inwardly of Red *Quickſilver* and *Sulphur*. *Tin* Calcin'd is more heavy than Uncalcin'd, which is contrary in all other Bodies; and is eaſily Calcin'd, or turn'd to Powder, if being melted, it be ſtirred continually, 'till it be grown Cold. The Wound of a Tin-Bullet is more dangerous than that of a Lead-Bullet, by reaſon the outward Parts of it are more rough, and abound with ſharp Eminences. This is a light Metal, and being touched with a red hot Iron, melts preſently. *Tin*. Calcination.

COPPER is one of the hardeſt Metals, *Copper*. both becauſe of the cloſe Connexion of its Parts, doth long reſiſt the Fire, and is not melted except it be firſt kindled, and ſhed ſo much Light, as that it appears like a bright burning Star in the Furnace; it is engendered

blueiſh Colour'd Ruſt, called *Copper* and *Tin* being melte very hard, beyond what e apart. See more in *Iron* bel

Braſs. BRASS is impure, and engendred of *Quickſilver*, *Sulphur* Red and Thick; the Mines apart; ſome are fou *Silver*. There is a ſort o made of *Marchaſite*, and ſorts of Earth. From *Bra* and *Chalcite* of Three ſort or Concocted, *Cadmia*, *Pompl*

Iron. IRON is the hardeſt of a being more difficult to melt; the lighteſt Metals, and eaſi by Ruſt, by reaſon of the S ceed from it; it is engende pure *Quickſilver*, mixed wit Filthy and Burning. The N the Mines in Grains and L is melted, is burn'd in Fo into Forms by main Force c of *Ir* be caſt into the Fire.

near *Smolnitz* in ..... the Water of being diſpoſed into Three Channels, ich pieces of *Iron* being laid, are changed *opper*; and *Quickſilver* may be changed nother Metal. *Iron* heated red hot in a , and then put into Water, hardens it; by often doing, becomes *Steel*, which is ſtiff and hard, but yet more Brittle than tho' it hath a greater Force to leap back any other Metal. *Iron* and *Steel* have lance of Pores, which are turned, and go ng like Screws, and by means of theſe roacheth to the *Loadſtone*; and therefore, ecauſe *Loadſtones* are dug out of the ſame , *Iron* is ſaid to be a-kin to the *Load-* and *Iron* cheriſheth the Vertue and Life at Stone. *Iron* that is Ruſty, is preſently ſed with Oyl of *Tartar*. Hiſtorians tell a Pool in *Ireland*, into which a Stake of being thruſt, that is covered with Mud, ith *Maginus)* changes to *Iron*; that with r, to Stone. At *Rome*, *Amſterdam*, &c. en Bones that have been turned to Stone Waters. To keep *Iron* from Ruſting, be- r it with the Marrow of a Deer, or Oyl. Metal in its Uſe, is of moſt Benefit, and Prejudice to Man's Life.

Steel, how made.

Iron, how preſently cleanſed.

See wonderful Fountains in the Treatiſe of *Elements*.

To keep Iron from Ruſt.

EAD is a blue Metal, partaking a very e whiteneſs, engendered properly of *Quick-* and *Sulphur*, and is eaſily bent, and readily melted; it differs only from *Iron* hat the Parts lie more cloſe together, and re ſmooth, which makes it ſo pliable and re heavy than *Iron*. *Lead* is uſeful in Phy- and Chyrurgery, being endued with a oling Virtue, and mitigates the Præternatu- Heat excited in Man's Body, and there- they uſe it for the drying and healing of

Lead.

Lead. For the Preparation
fects whereof, ſee *Matthi*
Chap. LIX.

Quickſilver. QUICKSILVER calle
by the Name of *Mercury*,
Metals, excepting *Gold*, a
Bodies ſwim on the top of
and it kills Men chiefl
Weight. Thoſe who gild
ployed in Chymical Pra
hold a Piece of *Gold* in t
the Fumes of *Quickſilve*
might prove dangerous to
tracts *Quickſilver*. See *Pl*
Natural and Artificial *M*
Air, in our Treatiſe of
to denote the moſt

Famous Mines in

Famous Mines in the World.

I. A *Gold* Mine in *G*
hath been wrought upon
Five Years, Ten *Engliſh*
Hundred and Seventy Fa

Hungary indeed

5. The famous Mine at *Rimili Dominurdtz* in *Tranſilvania*, where are ſometimes found large Lumps of Virgin *Gold*, fit for the Mint without Purifying.

6. The Mine of *Gold* in the Kingdom of *Aſem*, in the *Mogul*'s Empire; and many others diſperſed about, as that of *Feſſe* in *Barbary*; *Feſſe* ſignifying *Gold*, abundance whereof was found in digging the Foundation. *Caſtella Aurea*, or the *Golden* Coaſt in *Peru* . . . . . .

7. The *Silver* Mines of *Amberg* in *Germany*, yielding to the Elector Palatine, Sixty Thouſand Crowns Yearly.

8. Mines of *Silver* at *Japan*.

9. Mines of *Silver* in *Tuſcany*.

10. *Silver* Mines in *Murcia* in *Spain*, where the *Romans* kept Four Hundred Men at Work.

11. The Mines of *Silver* in *Aſem*, in the *Eaſt-Indies*, and others.

12. The *Copper* Mines at *Sinope* in *Turky* in *Aſia*, and near *Newſol* in *Hungary*, &c.

13. The *Iron* Mines of *Biſcay* in *Spain*, &c.

14. A *Vitriol* Mine at *Cremnitz* in *Hungary*, Eighty Fathom deep, *&c.*

15. A Mine of *Lapis Calaminaris* in the Country of *Juliers*, hath been wrought upon for Three Hundred Years.

16. The Mines of *Sal Gemm*, near *Cracovia*, Two Hundred Fathom deep, and conſtantly employing above a Thouſand Men, yielding a vaſt Revenue to the King of *Poland*.

17. The Mines of *Tin*, *Lead*, &c. in *Cornwall*, here in *England*, as alſo in *Wales* ſome *Lead* Mines, *&c.* Of Mines in *England*.

To all which may be added, our Inexhauſtible Pits, or Mines of *Coals* at *Newcaſtle*, and ſome in *Shropſhire*, &c. Alſo thoſe vaſt Pits

near *Feverſham* in *Kent*, and *Tilbury* in
out of which the Ancient *Britains* dug
Quantities of *Chalk*. See *Sands*, mentio
the Catalogue of *Rarities* in *Greſham* C
RARITIES.

Lead Mines, by the Cuſtom of the *P*
Derbyſhire, a particular Part doth belo
any Man that doth firſt find out the
and after he hath taken his Poſſeſſion,
is by driving a croſs Stake in the Ear
having made Election of ſo much as h
by the Cuſtom, whether the ſame be a
of Ground, which is about Twenty
Yards, or half a *Meer*, or what he p
and may lawfully be demanded by th
ſtom, they Term him the firſt Founder
ſuch others, who will have any Part un
ſed (as they may by the Cuſtom demand)
likewiſe take Poſſeſſion by a croſs Stake.

In many Places of *England* and *Wales*, where there are theſe ſorts of Mines, they do not altogether depend upon ſuch Cuſtoms, but in many Places they do belong to the Proprietors of the Ground. Lead Mines and Tin Mines in *England*, belong alſo to the Proprietors of the Ground.

For draining of *Coal* Mines in the North, they moſtly uſe Chain-Pumps, and do force the ſame either by Horſe-Wheels, Tread-Wheels, or Water-Wheels.

For draining of *Lead* and *Tin* Mines, they uſe ſuch Devices as are uſed in the *Collieries*; but theſe Mines lying for the moſt part in Hills, they drain the Waters out by a Sough.

Royal Mines, are Mines of *Gold* and *Silver*; and if any diſcovered in *England*, they belong to the Queen; as alſo Treaſure-Trove, *&c.* for which ſee the Statutes, and 5 *William* & *Mary*, Cap. 6. Royal Mines.

AUTHORS,

Eraſtus Treatiſe de Metallis, *Webſter* of Metals, *Agricola de re Metallica*, *Hiſtoire Metallique de la Republique d' Holland*, French. *Pliny*, Lib. XXXIV. *Muſæi Metallici*, *Le Grand*'s Philoſophy, *Part* II.

Of GRAMMAR and *LANGUAGES.*

GRAMMAR is the Art of Speaking and Writing a Language correctly; and Languages proceed from Words, Syllables, and Letters.

The firſt, Letters were *Chaldean*, Invented by *Abraham*, as *Philo* affirms, and were in uſe among Of Letters. By whom Invented.

mong the *Chaldeans*, *Aſſyrians*, and *Ph*
ns; tho' others ſay, that *Radamanth* wa
irſt that framed Letters among the *Aſſy*
After this *Moſes* delivered certain Cha
o the *Jews*, tho' not the ſame which ar
ow; the Author of which, *Ezra* is ſa
e, and of all the Books of the *Old Teſt*
fterwards one *Linus*, a *Chalcidian*, is
ave brought over Letters out of *Phœni*
o *Greece*, being the *Phœnician* Cha
which were there us'd, 'till *Cadmus*, th
of *Ægenor*, made, or brought among
other new Letters, to the Number of Si
o which *Palamedes*, in the Time of the
War, added Four more; and after him,
ides, the *Militian*, as many more.
Egyptians, one *Memnon* (as ſaid) firſt
he uſe of Writing by the Pourtraictu
Beaſts, as is ſeen in their Obelisks;

dras; others differing from theſe, believe the Law was written in the ſame Character now us'd.

The *Egyptians* gloried themſelves in Times paſt to be the moſt Ancient People in the World; and one of their Kings, named *Pſammeticus*, aſſaying to find out the Truth, and imagining Children would, by Nature, ſpeak the Original Language, cauſed Two new-born Infants to be brought up in a certain Place, and no Man to pronounce one Word before them. After Two Years Time their Lodging was opened, and the Children pronounced no other Sound or Thing but *Bec*, *Bec*, (which Sound they learn'd probably of the *Goats* that were ſhut in with them to Suckle 'em, during the Time of their Confinement.) This Word being examined, was found to ſignify Bread, in the *Phrygian* Language, therefore were the *Phrygians* accounted more Ancient than the *Egyptians*. But *Goropius*, a Phyſician of *Brabant*, in his Book, Entitled, *Origines Antuerpianæ*, aims all he can poſſibly to prove the *Cimbrique* Tongue (which is in his Opinion the *Lower Almaigne*) to be the firſt Language of the World; while (as is ſaid before) others affirm the *Aramæan* to be the firſt Language in the World. But with much more Reaſon and Certainty is the *Hebrew* maintained to be the Original Language of the World; nor is there any Nation under Heaven (ſaith the Summary on *Sylveſter's Du Bartas*) that retaineth not ſome *Hebrew* Words, as the *Chaldean*, *Syriack*, *Arabick*, *Egyptian*, *Perſian*, *Ethiopian*, *Gothick*, *Trogloditicque*, *Punick*, &c. which are in ſuch ſort derived, that they approach the ſame as the *Romans* do the *Latin*, the one more, the other leſs.

Pſammeticus's Invention to find the firſt Language of the World.

The

Of Grammar and Langua

The Art of *Grammar* conſidere
Things in Words, the Letters and t
bles, as likewiſe Two ſorts of Lett
ſome Sound alone, and are called Vo
a, *e*, *i*, *o*, *u*; others Sound not alone
gether, with ſome other Letter, and
called upon this account, Conſonants,
following, *b*, *c*, *d*, *g*, *k*, *p*, *q*, *t*, (wh
ters are called Mutes) as, *f*, *l*, *m*, *n*,
s *z*, are called half Vowels.

A Syllable that has a full Sound, is
t either of a Vowel and a Conſonan
d Vowels and Conſonants.

k In Words, *Grammar* conſidereth t
cents, or Tone, whether *Acute*, or
Mean; their *Derivation* and *Etymol*
Compoſition and *Simplicity*; their *Nu*

lence of many of th[illegible] foregoing Lan-
s.

Literarum Hebraicarum.

mina.	*Figuræ.*		*Similitudo.*		*Poteſtas.*	
ph	א		א	צ	Spiritus lenis	1
th	ב		ב	נ	bh	2
mel	ג		ג	נ	gh	3
leth	ד		ד ך	ד	dh	4
	ה		ה		h	5
1	ו		ו	ו	v conſ.	6
in	ז		ז	ו	z	7
eth	ח		ח	ת	hh	8
h	ט		ט	ס	t	9
h	י		י	ו	j conſ.	10
iph	כ	ך			ch x	20
nedth	ל				l	30
m	מ	ם			m	40
n	נ	ן			n	50
nech	ס		ס	ס	s acutum	60
najin	ע		ע	ץ	ghn ngh	70
e	פ	ף			ph	80
ade	צ	ץ			ts	90
ph	ק				k	100
ch	ר				r	200
chin	ש				ſch ſh	300
	ש				s	
am	ת				th	400

The *Hebrew* Tongue comprehendeth many of the *Hebrew* Tongue. in a few Words, and is wondrous Sig-; ſo that the *Rabbins*, or *Hebrew* Do- have obſerved in the Twenty Two Let- of the *Hebrew* Alphabet (either conſidered y, or united the one with the other) all the

Tongue, which being tr
eaſily be) ſometimes in
ſorts, according to the
which preſenteth not an
cordant Relative, or co
Tongue is called the *Hol*
be read backward, *i. e.* f
to the Left. As touching
Hebrew Alphabet, *Euſebi*
his Epiſtle *ad Paulam U*
Hundred Fifty Fifth, e
Senſe. The firſt Letter,
ctrine; *Beth*, a Houſe;
Daleth, Tables; *He*, T
That; *Cheth*, Life; *Thet*
ginning; *Chaph*, Hand;
or Heart; *Mem*, Of the
Samech, Aid, or Succour
Eye; *Phe*, Mouth; *Sade*,
tion; *Reſch*, a Head;
Signs; which may be e
Doctrine of the Church, i
God, is found in the fulne
is, of the Divine Books.

eech. This Language is excellent for Phi-
hy and the Liberal Arts, but more excel-
for ſo great a part of the means of our
tion delivered therein, alſo for its lofty

Græcorum Literæ.

Figura.		*Nomen.*	*Poteſtas.*
α	ἄλφα	Alpha	a
β ϐ	βῆτα	Beta	v
γ Γ	γάμμα	Gamma	g
δ Δ	δέλτα	Delta	d
ε	ἒ ψιλὸν	Epſilon	e breve
ζ Ζ	ζῆτα	Zeta	z
η	ἦτα	Eta	e longum
θ ϑ	θῆτα	Theta	th
ι	ἰῶτα	Iota	i
κ ϰ	κάππα	Cappa	k c
λ Λ	λάμβδα	Lambda	l
μ	μῦ	Mu	m
ν	νῦ	Nu	n
ξ	ξῖ	Xi	x
ο	ὸ μικρὸν	o micron	o parvum
π ϖ	πῖ	Pi	p
ρ	ῥῶ	Rho	r
σ ς	σῖγμα	Zigma	s
τ	ταῦ	Tau	t
υ	υ ψιλὸν	Y pſilon	u
φ	φῖ	Phi	ph
χ	χῖ	Chi	ch
ψ	ψῖ	Pſi	ps
ω	ὠ μέγα	O mega	o magnum

and ſignificant Expreſſions of the Mind;
in the flouriſhing of the Common-
it over-topped the *Latin*, in ſo much
the Hiſtories of *Rome* were writ in this
Tongue,

of being the Mother of Ai
Greek Tongue, as well
changed Five or Six time:
from its Elegancy, grea
touching the Writing an
well as Diſpoſition of the
of which may be ſeen i
Arts.

Five Greek *Letters myſti*
ſidered

1. Υ *Ypſilon* betokeneth
called by *Pythagoras*, *Samia*
formed the ſame, *ad exe*
This Letter hath Three Po
One beneath, ſignifying ſu
derneath ſheweth the firſt
tain, whether it will appl
and the Two above begin
Right Part whereof is h
Bleſſed Life; the Left n
ing to Deſtruction. 2. Th
Death; for Judges ſet

idſt thereof a Dart in Token of Death.

. *Tau*, a Figure of the Croſs of Chriſt; and T
Hebrew, is interpreted a Sign or Mark, of
ich it was ſpoken to the Angel, which *Eze-*
l ſaw in Spirit, " Go thy way through the
City of *Jeruſalem*, and ſet a Mark upon the
Foreheads of them that Mourn, and are ſorry
or all the Abominations that be done therein.
which Mark they were preſerved in the
idſt of them that were ſlain and deſtroyed for
r Idolatry, in the Wrathful Diſpleaſure of
Lord. And this Letter alſo, *apud veteres*,
ſed of Captains and Heralds, and ſigned
their Names who remained alive after the
tle. So that the Letter *Theta* was uſed as
Mark of Death, and *Tau* of Life, or of
n that were by the Judges quit from Death.
is Letter T, as well the *Greeks* as the *La-*
s, have pictured and ſet forth as the true
ark or Sign of the Croſs of Chriſt. 4. and
The firſt and laſt Letter of the *Greek* Al- A & Ω
abet, Chriſt only doth challenge to him-
f, for he is the Beginning and Ending; as
here he ſaith, *I am Alpha and Omega, the Be-*
ginning and End, &c. *Apoc.* Chap. I.

The *Latin* Tongue is more Nervous and Of the Latin
rave than the *Greek*, and hath been ad-
nced by the *Roman* Arms, whoſe Conqueſts
ead it over all Nations. This Language
h recovered much of its Luſtre, by divers
eat and Learned Men ſprung up in *Eu-*
e, tho' it hath ſcarce yet attained to the
our and Grace of the Ancients, ſuch as
ro, *Cæſar*, *Titus Livius*, *Horace*, and others.
read, the Language of *Italy* was divers;
Apulia they uſed the *Meſapian* Tongue; In
abria the *Greek*; In *Etruria* the *Tuſcan*;
in *Latium* the *Latin*, which laſt ſo altered

in

in a little Time, that *Polybius* ſaith th
Articles of Peace made between the
and *Carthaginians*, could not be und
by the beſt Antiquaries of his Time.
the *Latin* Letters, great Diſputes hav
whether *H* be a Letter or not. The
Character is well known, and theref
need not inſert the Letters, but will onl
That in Pronunciation of Words, the
love to Accent the firſt Syllable, the
the laſt, but the *Latins* the Penult o
penult.

The *French* Tongue is a ſmooth and
Language, but is ſomething difficult t
the People leaving out in their Pronu
many of their Conſonants; and inſ
pronouncing their Alphabetical Letter
do, pronounce them thus, *Aw*, *Bé*, *Cé*,

tu Nombre; *Venga a nos tu Regno*; *hagaſe tu Voluntad, aſſi en la tierra como en el Cielo. El pan nueſtro de cadadia*, &c. The other Ingredients of this Tongue are generally the *Gothick*, *Arabick*, and Old *Spaniſh*, and in ſome Places the *French* alſo.

Of the *German*.

The *German*, or *Dutch* Language, hath leſs commixture with the *Latin* than any which is uſed in the Weſtern Parts; it is very harſh, by reaſon of its ſo many Conſonants, having ſeveral corrupted *French* and *Latin* Words alſo intermix'd therewith. This Language, with a ſmall difference, is ſpoke in *Swedeland*; (the Perſons of Quality ſpeak the pure *German*) and the Language of *Denmark* is originally from the *Teutonick*, for the Better ſort of People uſe the High *German* in Diſcourſe, but if they Talk with Strangers they uſe the *French*.

Swediſh.

Daniſh.

Of the *Turkiſh*.

The *Turks*, for the moſt part, uſe the *Arabick* Letters, which are of a very ſtrange Form, eſpecially that which they call their Running Letter, in Compariſon of the *Greek*, *Latin*, and *French* Writing. The *Turkiſh* Language being originally the *Tartarian*, borrowed from the *Arabick*, their Words of Religion; from the *Perſian*, their Words of State; from the *Grecians*, their Words and Terms of War; and from the *Italians*, their Terms of Navigation. This is called the *Sclavonian*.

Of the *Poliſh* Language.

The *Polanders* ſpeak a Dialect of the *Turkiſh* or *Sclavonian*.

Hungarian.

The *Hungarians* have a peculiar Language of their own, like the *Tranſilvanian*. Vide *p.* 53.

Portugueza.

The *Portugals* ſpeak a Language compounded of *French* and *Spaniſh*.

Tartareſque.

The *Tartars* (Anciently called *Scythians*) have a Language reſembling the *Turkiſh*, as the *Spaniſh* doth the *Italian*; for as *Italians* and

Spaniards can underſtand one another,
the *Turks* and *Tartars*.

The *Scotch* is a Corrupt *Engliſh*, mix'
German, Low *Dutch*, and *French*.

The *Iriſh* is thought to be of *Britiſh*
ction, but is of great Antiquity, and t
ters have ſome reſemblance of *Hebrew*,
and other Characters; and the old *I*
now become almoſt unintelligible, ve
Perſons being either able to read or und
it. See *p.* 54.

The *Welſh*, or *Britiſh*, is thought mo
to its Primitive Language, which the *A*
Britains did uſe, than any Modern To
Europe, yet is unpleaſant to the Ear, b
ſon of its many Conſonants.

The *Arabick* is a Language ſo Encha
that 'tis a common Hyperbole, That the

Some Chinese Characters.

y which may be ſeen how ſmall a matter al-
rs their Signification.

Note, The *Chinois* Print not as we uſe,
om the Left Hand to the Right; nor as the
ios and *Dacians*, from the Right Hand to
Left, but from the Top of the Leaf down-
rds to the Bottom.

Of the *Indian* Tongues.

The *Indians* have Thirty Three Letters in
ir Alphabet, and write from the Left to
e Right in the Peninſula beyond *Ganges*,
ntrary to the Cuſtom of other *Indians*. The
zarète Tongue is the Chief in the *Mogul*'s
npire, tho' they Pray in *Arabick*, and at
urt ſpeak the *Perſian*.

The *Japanaiſe*

The *Japanaiſe* Language is very curious,
herein they have ſeveral Words to expreſs
ne Thing, ſome in Deriſion, others in Ho-
our; ſome for the Prince, others for the Peo-
le; as alſo for the Quality, Age, and Sex of
he Speaker, and Perſon ſpoke to.

Abaſſine Tongue.

The *Ethiopian*, or *Abaſſine* Tongue, ſeems to
have ſome Affinity with the *Hebrew* and *Chal-*
daick; and is thus far ſingular, that the *Abyſ-*
ſins reckon our Firſt Letter *A* their Thirteenth.
See *Ludolphus*'s Grammar.

Of Grammar and Langu

The Languages of other Countries
and *America*, are but meer Jargon
rude and harſh to themſelves, and
as well as unintelligible to us; the
where they ſpread their Colonies and
uſe the *European* Language.

The Difference and Affinity of ſe
guages may be ſeen from that fa
tence of *Habakkuck*, 2. 4. *But the*
live by his Faith, expreſſed in Thi
Languages, or ſeveral Tongues,
which we are forced to ſet down in
mon Printing-Letters, the Printer n
the proper Characters of thoſe Cou

brew, —— —— { Ve-tzaddiq Be emu
jeh.

menian, —— ——	Shedeck Mart eer Serdoven Kapree.
rsian, —— ——	Raſt Adem eis Fiker hod Migzeratt.
orgian, —— ——	Martalee Katſeea tavis Seemartlitta Darchebis.
van, *Moollay*, ——	Orany Betool Deah-Pooniah Emaun Ollough Cabbool.
ſt-Indian, *Surat*, —	Neek Zaut Oouſkah Ema un coodawkah haut.
eſt-Indian, *New-England*,	Sampivenſſeanuta piſh pômantum Kiſke Wunnamptamoonke.
ngarian, —— —	Azigaz Ember pedig hit altel el.
ranſilvanian, — —	Aſſigas emberpedik itt altel el.
oldavian, — ——	Wom Kudireptate Kulege alui Trayeſti.
rtarian, *Coſſackian*,	Ho Dikaios Athropos Metin Biſte too Zee.
gh German, ——	Denn Der Gerechte bebet (*Pronounced* Dan-D'arl'abet) Sines Glaubens.
hemian, —— ——	Geſt Sprawedliwy (*Pronounced* Spraved livy) ziw Bude z wijry.
lavonian, — ——	Pravedne oot vearea zeove Boudet.
uſcovian, *Ruſſian*, —	Prawidlievy zijut prze wiare (*Pronounced thus*, Praviedlievy tzewut pertze vee-yare.)
urkiſh, —— ——	Sadick Adam onung ichtikat eyla deriller.

ettoiſh, — — { Taiſus per wiera wens.

oliſh, — — { Sprawiedliwij z w bendzie Zil (Spraw'vidleevy z tzwey bendge tz

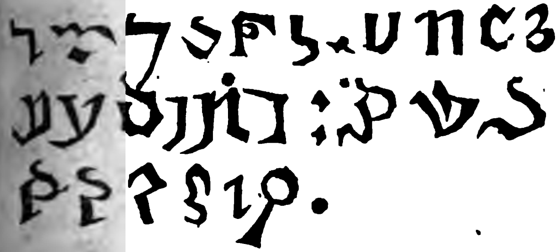
aniſh, — — { Den Retferdige ſc aff, Sin tro (dan Ratf la 'fe.

wediſh, — — { Then Retferdiga ſ aff ſine Troo (Ten Ratva'rdiga Tru.)

etherlandiſh, — { De Rechtverdige ſ Geloove leven (Recht va'rdige ga'love la'ven.

The Letters of the Running Hands of the Jews *of* Spain.

See at the end of Rarities, in *Gresham* College Rarities.



The Ancient *Saxons* Letter or Character was formerly used very much in *England*; and for that it may be often met with in Ancient Manuscripts, or the like, I shall Insert them here.

The *Muscovites* write upon Rolls of Paper cut into long Scroles, and glued for Twenty Five or Thirty Ells together.

A b c ð ϵ ꝼ ȝ ı l m n o p q ꞃ ꞅ ꞇ u ƿ x y.

Æ for Æ, Ꜵ æ, Ð Th, ð th, þ th, ⁊ and, ꝥ that.

The meaning of some great Letters that are often met with, and to be found in Authors.

A.	Stands for	Aulus.
A. C.		Anno Christi.
A. D.		Anno Domini.
A. M.		Anno Mundi.
Ab U. C.		Ab Urb Condita.
C. c. v.		Caius. chap. verse.
D. M. S.		Diis Manibus Sacrum.
D. O. M.		Deo Optimo Maximo.
D. d.		Decius. denarius.
D. D.		Doctor of Divinity.
F. E. R. T.		Fortitudo ejus Rhodum tenuit.
F. R. S.		Frater Reg. Societat.

C.	Stands for	Gaius. Geneſis.
N. S.		Hoc Monument. hæredes non
		Julius Cæſar. id eſt.
		Lucius. Leg. Doctor.
		Marcus. Magiſter Artium.
F.		Hoc Monumento Poſuit vel
		Manuſcript.
		Publius.
P.		Populus Romanus.
		Patres Conſcripti.
Q.		Quirites Quintus. quaſi.
		Spurius.
S. P. Q. R.		Senatus, Populus Que Roma
S. T. T. L.		Sit Tibi Terra Levis.
S. D.		The ſame as D. D.
T.		Titus Veſpaſian. Vide.
T. C.		Tua Clementia.

Of the Engliſh *Tongue.*

The *Engliſh* Language (or as ſome will have it a Speech) is compounded of *Saxon*, *Dutch*, *French*, and *Latin*, participating of the Perfections of all, and is neither ſo boiſterous as the *German*, nor effeminate as the *French*; yet as ſignificant as the *Latin*, being ſo much refined of late Years, that it is neceſſary to know the *Latin* Tongue to underſtand the *Engliſh*. It partakes moſt of the *Saxon*, as appears by our common Appellations of Names, as alſo of Titles of Honour, and Ignominious Terms, as ſuch as *Knave*, &c. For which ſee *Verſtegan*'s Antiquities.

For Obſervations upon our Letters, Note,

A is not heard in *Pharaoh*, as if *Pharoh*; nor but one *a* is to be heard in *Iſaac*, *Aaron*, &c. *Of* A.

B is not ſounded in *Climb*, *Dumb*, *Thumb*, *Lamb*, &c. *Of* B.

C before *a* and *o* and *u*, ſound like *K*, as *Cat*, *Cord*, *Cup*; but before *e*, *i*, *ee*, *ie*, and *y*, like *s*, as *Cedar*, *Ciſtern*, *Exceed*, *Cieling* of an Houſe, *Cyder*, *Cynthia*, *Cyprus*; nor is not heard in *Indictment*. *C* goes before *k*, as *Black*, *Back*, *Lack*, *Track*, *Thick*, *Lock*, *Stuck*, &c. except a Conſonant before *k*, as *Thanks*, not *Thancks*, &c. but *c* goes not before *k* in *Bake*, *Cake*, *Wake*, *Make*, &c. *Ch* have a particular ſound in *Engliſh* Words, as *Arch*, *Rich*, *Church*, and *Roch*, *Tench*, *Perch*, *Dutch*, &c. but in *Hebrew*, like *K*, as *Rachab*, *Nebuchadnezzar*, *Antiochus*, &c. except *Rachael*, *Michael*, *Archangel*, &c. which laſt differs in ſound *Of* C.

ſound from *Archbiſhop*, *Architecture*, are pronounced as *Arch* before.

D is not heard in *Wedneſday*, as if *Wenſday*; but *d* ſhews *Edge* from *Eg* from *Bag*, &c.

E diſtinguiſhes *Fire* from *Firr*, *Si* *Sir*, &c. and in Foreign Words make lable, as *Feſſe*, *Epitome*, *Candace*, &c.

F ſtill keeps its force, and when 'tis Letter of a Word, is always double *Muff*, *Huff*, *Stuff*, *Stiff*, *Whiff*, &c.

G ſounds double, as *Gold*, *Gorge*, a hard and ſoft in *Gorgeous*, as if writ G But when *a*, *e*, *i*, *o*, or *u*, follows th ſound, inſtead of *G* muſt be *J* Conſo *James*, *Jewel*, *Jilt*, *John*, *Judas*, &c not heard in *Phlegm*, *Sign*, *Campaign* *Feign*, *Deſign*, &c. *Gh* ſounds like *ff* i *Cough*; but *Scaff* is otherwiſe ſpelt

coming fr[om] t *Lat*[in], which do not double the *l*; bu[t] l *Dull, Trull, Roll,* 'tis otherwiſe. And if a C[on]ſonant be next before *l* joined to a Vowel, at the end of a Word, they muſt not be pa[r]ted, as *Bi-ble, Aſ-ſa-ble, Axle-Tree*; and th[e] ſame Rule for *r*, as *Mi-tre, Scep-tre*, &c.

M always keeps its ſound ſo full, that the Letter *Of M.*

N is not heard in *Solemn, Autumn, Hymn*, &c. *Of N.*

O is not ſounded in *People, Jeopardy*, as if written *Peeple*, &c. *Of O.*

P is not heard in *Pſalm, Contempt, Xpoſer*, i. e. *Chriſtopher*. *Ph* ſounds like *f*, in *Phyſick, Triumph, Ralph, Cough*, &c. *Of P.*

Q hath always *u* Vowel after it; and in Words coming from *quus*, you muſt write *que*, as in *Oblique, Cinquefoil*, &c. *Of Q.*

R is ever expreſſed in *Engliſh*, tho' never ſo often inſerted in a Word, as in *Rural, Rare*, &c. *Of R.*

S is loſt, and may be termed a Liquid in *Iſle, Iſland, Viſcount*, &c. The two firſt Words are in *Acts* 28. 9. 11. *S* ſounds like *Z* in *Eaſe, Pleaſe, Praiſe, Raiſe*; and *z* like *s* in *Raze*; a long *ſ* muſt never be uſed at the end of a Word, as *Suſtains*, &c. *Of S.*

T with an *i* generally ſounds like *ſi* before a Vowel, as in *Action, Inclination, Creation*; in *Petition* the laſt *ti* ſounds like *ſi*; *Acceſſion* muſt not be writ *ti*, nor *Diviſion*, nor *Admiſſion*, nor any Word which is not writ with a *t* in the *Latin*. *Of T.*

V Conſonant and *U* Vowel muſt be carefully diſtinguiſhed both in Writing and Reading, as *Vulgar* and *Univerſity*, which are different, as alſo *Vote* and *Ugly*, &c. *U* Vowel is not heard in *Guard, Guide*, &c. and it but ſeldom ends *Engliſh* Words. *Of V. & U*

W is

V is not ſounded after *o*, as in *Win*
, &c. except in *Sow*, *Vow*, *Cow*, *How*,
before *r* in *Wretch*, *Wright*, *Wrinckle*,
s a double Conſonant, made of Two *V*
nts, which will not begin any Syll
therefore is in Spelling put to the
vel of any Word.
is alſo double, made of *c* and *ſ*, and
the ſame Rule as *W*, for the ſame rea
is uſed in *Greek* Words, as *Synag*
ick, &c. and at the end of *Engliſh* W
My, *Fly*, *By*, *Sty*, *Cry*, &c. ſounding
vel, or *ie*; it is a Conſonant before a V
outh, *Yonder*, *Year*, &c. and a Vowel
onſonant, as in the Two *Greek* Words be
is ſounded like *S*, and ſeldom
ch all Writers agree upon, and
e properly (if Paradoxes may be acce

The like [illegible] made in many other kinds of w[illegible]ds, [illegible]ng treated thus much as to the Pronuncia[illegible]n of Words, and the Office of Letters, & [illegible]t may not be improper to add the

Points for true Orthography.

Points for Orthography.

A Point is the Separation of a Speech, which is Twofold, 1. Of an Imperfect, and 2. Of a Perfect Sentence. The Points of an Imperfect Sentence are, 1. A *Comma* (,) which ſtays the Breath without taking Breath, and is made between the Seventh and Eighth Syllable; 2. A *Semicolon* (;) which is about the middle Space between the C[illegible] and *Colon*, as alſo half the Space betw[illegible]t *Colon* and *Period*. Thoſe Points for diſtinction of a Perfect Sentence are, 1. A *Colon* (:) whereby the Breath is ſtopped for a longer Space than in the former Points, and is ſet about Eighteen Syllables from the laſt Period; 2. A *Period* (.) which is when, with a full Breath depoſited, a Perfect Sentence is concluded. And this *Period* often divides the part going before, called *Ill protaſis*, from that following, called *Apodoſis*.

Comma (,)

Semicolon (;)

Colon (:)

Period (.)

The *Parenthesis* ( ) includes ſome Words which, if left out, would not break or alter the Senſe, or ſmoothneſs of the Stile.

Parenthesis ( )

The *Interrogation* (?) is made at aſking a Queſtion.

Interrogation (?)

Note of *Admiration*, or *Exclamation* (!).

Exclamation (!)

Hyphen (-) Couples together Two Words, as *Well-Spring*, and is uſed when a Word is parted into Syllables at the end of a Line.

Hyphen (-)

The *Section* (§) divides a large Diſcourſe into ſeveral Parts.

Section (§)

Paratheſis

Parentheſis [ ] is uſed in Expoſitions, called
o a *Crochet*.

Aſterisk, or *Aſteriſm* (*) refers to the Mar-
, *&c.*

Obelisk (†) Notes from the Matter to the
rgin.

An *Index* ☞ Notes from the Margin to
Matter.

Note of *Citation* (“) when Authors are cited
rd for Word.

Apoſtrophe (’) is when a Letter is purpoſe-
left out, as *’Tis*, for *It is*; *’Twas*, for *It
’.*

Induction (ʌ) is made to bring in ſomething
itted.

Dialyſis, or *Diaireſeos* (¨) is uſed to part a
phthong, and is made over the Vowels, *Aër*,
ta, that it may not be pronounced *Ær*,

Syllable fron[illegible] 3. *ope* taketh away a Letter or Syllable from the middle of a Word, which, 4. *Epenthesis* add[illegible]h thereunto; 5. *Apocope* takes away a Letter or Sylla[illegible] from the end of a Word; wl[illegible]h 6. *Pa*[illegible] add-eth thereunto; 7. *Antith*[illegible]*is*, a [illegible]*istech-n*, change one Letter for [illegible] 9. *Meta-thesis* misplaceth a Lett[illegible] as I *Thymber* is writ *Thymbre*; 10. *Tme*[illegible]*is* divides or separates the parts of a Compou[illegible] Word, by Interpo-ing something between them; 11. *Synæresis* ontracteth Two Syllabl[illegible] into One; 12. *Dia-resis* divideth a Syllable, or of One maketh Two. See the Grammars, particularly *Clare's* Compleat Syſtem of Grammar.

For Method of Stile in Writing and Speaking, ſee the Treatiſe of *RHETORICK*.

Note, The Letters or Characters of the Ancient *Hetrurians* are quite loſt, tho' formerly in high Eſteem amongſt the *Romans*, as *Livy* and *Pliny* witneſs; and altho' ſome of them are to be found on Ancient Coins, yet their Signification are altogether unknown.

The People of *Biſcay* in *Spain* uſe a Language different from the reſt of *Spain*, and are reported to have continued without great Alteration ſince the Confuſion of *Babel*. In like manner the *Arabick* continueth uncorrupted in the Hilly Parts of *Granada*; the Tongue of the Old *Britains* in *Wales*; and the Ancient *Epirotick* in the High and Woody Parts of that Country.

The Language moſt Pure in the Mountainous and Unconquered Part of a Country.

Mithridates, King of *Pontus*, was a Man of excellent Memory, and could ſpeak no leſs than Two and Twenty Languages.

Eminent Perſons ſkilled in ſeveral Languages.

Joſeph Scaliger was ſkilled in Thirteen Languages, *viz. Spaniſh*, *French*, *Dutch*, *Italian*, *Latin*,

Nubian, *Chaldean*, *Syriack*, *Arabick*, *
Latin, *Greek*, *Hebrew*, and *Engliſh*.

Sir *Kenelme Digby* was ſkilled in Si
ral Languages.

Amalaſunta, a *Gothiſh* Queen in *Italy*,
527. was ſkilled in the Language of
ions that had any Commerce then w
Roman Empire, which were many.

Elizabeth, Queen of *England*, cou
courſe in *Greek*, *Latin*, *French*, *Dutc*
an, *Spaniſh*, and *Engliſh*.

Frederick II. Emperor of *Germany*
ſpeak Fourteen ſeveral Languages.

For the beſt Authors of ſeveral Lan
ſee in the Treatiſe of *ARITHMETI*

Many GRAMMARS have been P

HIE[R]OGLYPHICKS.

HE *Egyptians*, inſtead of uſing Letters, or Characters, uſed certain Portraictures eral ſorts of Creatures, called *Hieroglyphicks*, under which Forms they expreſſed Conceptions; therefore, to unvail great f that Mythological Learning lay wrapn thoſe dark and cloudy Complications, Purpoſe of what followeth.

Hieroglyphicks.

GOD, they Painted a Falcon, as well iat he ſoared ſo high, as alſo for that he neth all leſſer Birds.

Eternity, they Painted the Sun and , believing they were without Beginning d.

r a *Month*, a Palm-Tree, which ſends a Branch every New Moon.

r the *Year*, a Snake with the Tail in its th.

r any Thing abominable to the Gods, Painted a Fiſh, becauſe never uſed by the ts in their Sacrifices.

r *Nature*, a Boy involved and inveloped a Net.

r *Mutual Viciſſitude*, the Fig-Tree, whoſe Fruit never falls off, 'till the new ones ap-

r *Magnanimity*, a Lyon Rampant; For *mſpection* and *Caution*, Regardant; For *edition* or *Celerity*, Saliant; For *Counſel*, nt; For *Prudence*, Paſſant; For *Defence*, dant.

or *Fidelity*, *Juſtice*, and *Piety*, an Elent.

For *Phyſick* and *Phyſicians*, a Dog's Tongue, ich Heals with Licking.

Of Hieroglyphicks.

For *Murder*, Impudence, *&c.* a Sea-
which deſtroys its Sire.

For *Silence*, the Woolf, which is ſaid to
Men Dumb at his Sight.

For *Muſick*, the Swan and Graſhopp
firſt of which is ſaid to Sing ſweetly ju
fore ſhe dies.

For *Wiſe Councils*, Three Heads Con

For *Vigilance*, the Gooſe and Dog, th
of which ſaved the Capitol.

For *Maternal Affection*, the Pelican,
will ſtrike its own Breaſt to force out
for Nouriſhment of its Brood.

For *Houſewifry*, the Induſtrious T
was decyphered.

For *Safety* and *Preſervation*, the Ichne
See in *ANIMALS*.

For *Hereticks*, foul Serpents, and ſu
deed they are to the Church.

For the [illegible] which (ſaith *Horus Apollo*, [illegible]ien it [illegible] mind to bring forth, takes the Excrement [illegible] Ox, which having wrought into ſmall Pel[illegible] round as the World, it turns them about fr[illegible] Eaſt to Weſt, it ſelf in the mean time (as [illegible] ſhe intended to ſummon great Nature to [illegible] theſe Travails) turning to the Eaſt.

In the Hieroglyphi[illegible] Cardinal *Bembus*, ſo often menti[illegible] by *Kircherus*, in his *Oedipus C*[illegible] is ſet down the Figure of the *Scar*[illegible] Beetle, for the Trunk, but with the H[illegible] Face of a Man, ſupporting a little Tab[illegible] with this Inſcription, Φύλο; about the Neck, Number of Concentick Circles, to expreſs the Orbs and Motions of the Heavens; upon the top of the Head, a Face of the Encreaſing Moon, to imitate her monthly Revolution; within that, a Croſs ☩ Mark, for the Four Elements, weaving together all Things above a winged Globe, and wreathed about with Two Serpents. The winged *Sphære* wreathed about with Serpents, is the *Hyeroglyphick* of the Soul and Spirit of the Univerſe; and the *Humane Face*, is to be underſtood the Sun and his Courſes, ſaith *Barachias Albenephi*.

For an *Embrio*, the *Hieroglyphick* was a Frog.

He who deſires more Plenary Satisfaction herein, let him take it from the Hands of theſe

AUTHORS,

Barachias Albenephi, of the Ancient *Egyptian* Learning, Cardinal *Bembus*'s Hieroglyphical Tables, *Athanaſius Kircherus*'s *Oedipus Copticus*, *Hieoglyphicks* of *Valerianus*, *Plutarch*'s Treatiſe of *Iſis* and *Oſyris*, *John Pierrius*'s Commentary, the Treatiſe called *Orus Apollo*. See *Cauſin*'s Chriſtian Hiero[illegible]yphicks.

before *Muſæus*, *Heſiod*, and
Authority *Plato*, *Ariſtotle*,
mine their weightieſt Cont
firm their Reaſons in Phil
were the Songs of *Linus*,
Olympus, and that Ditty
Harp at *Dido*'s Banquet, bu
ral Philoſophy, ſweetned
of Numbers, that Ruden
might the better Taſte and
of Civility?

The Poet is made by Mir
Womb, each Man bringing
nate Property thereto at
Hence *Tully* is ſaid to be l
delivered of a few (and th
ſes, whilſt *Ovid* was ſo l
that he could almoſt ſpeak

Much hath been writ in
of this Art, ſome calling i
Mind, others again affirmi
Senſe a *Prophetick Spirit*, c
David but a *Divine Poem*,
one Meaſure, ſometimes ir

ing *Homer* ly moved to go through with his Conquests, as also our *Bards* gave no small Edge to the Valour of our ancient *Britains*, as is remembred by *Athenæus*, *Lucan*, *&c.* which is no small Addition to its Praise. And every one knoweth almost how dear the Works of *Homer* were unto *Alexander*; *Euripides* to *Amyntas* King of *Macedon*. *Virgil* to *Augustus*, and *Alphonsus* King of *Naples*; *Theocritus* to *Ptolomy* and *Berenice* ng and Queen of *Egypt*; the stately *Pinda* to *Hiero* King of *Sicily*; *Ennius* to *Scipio*; *Ausonius* to *Gratian*, who made him Proconsul, our *Chaucer* to King *Richard* II. *Gower* to our *Henry* IV. *&c.* And *Charlemaigne*, *Augustus Cæsar*, *Octavius*, *Adrian*, *Germanicus* disdained not only to make Poesie, but are Eternized for their Skill therein, among a Croud of others Ancient and Modern, to the Number of about Three or Four Thousand. See *Theatrum Poetarum*.

Yet are Poets by some highly accused for their monstrous Fables of the Birth of *Venus*, the Fight of the *Titans*, the Infancy of *Jove*, the Deceits of *Rhea*, and Cheat of the Stone, *Saturnus* Bonds, the Giants Rebellion, the Thievery and Punishment of *Promotheus*, the Wanderings of *Delos*, the Travail of *Latona*, the Slaughter of *Python*, the Treachery of *Tyrus*, *Deucalion*'s Flood, Stones turned into Men, *Niobe* into Stone, the Butcheries of *Iacchus*, the Fraud of *Juno*, *Semele*'s Conflagration, the double Progeny of *Bacchus*, and whatever is reported of *Minerva*, *Vulcan*, *Castor*, *Pollux*, *Erichthonius*, *Orychas*, *Theseus*, *Ægeus*, *Hellen*, *Hypolitus*, *Minos*, *Cadmus*, *Pantheos*, *Atteus*, the Twelve Labours of *Hercules*, Fight of the Sun with *Neptune*, *Athamas*'s Madness, *Io* turned into a Heifer, *Leda*'s Swans, *Argos* her

See *Agrippa*.

Lethe, *Acheron*, burning *Phlegeto*
other Inventions of the Brain : (
more hereafter in the Explanation
tical Fictions.

The Art of POETRY teacheth
the Quantity of Syllables, whetl
long, *&c.* and teacheth what Feet
is compounded of, becauſe Feet
Syllables of different Quantities: C
ſently.

Verſe. VERSES are either denominat
Inventors, as Sapphick Verſes frc
Poeteſs *Sappho* the firſt Inventreſ
from *Pindarus*, or from the Feet
conſiſt. Iambick, from the *Iambi*
they are compoſed, or from th
expreſs. Heroick, from the Pr
Men. Elegiack, from ſad Narra
the Number of Feet.

A POEM implieth a Fictior
Account Verſes that contain no
ſtrictly conſidered a Poem, and

Verſe is accounted common, and a Verſe is made up of Feet, which Feet are made of Syllables diſpoſed in a juſt or right Order.

A Foot is the ſetting or placing together Two Syllables or more, according to the certain Obſervation of the Quantities; and is fourfold, 1. A *Spondee*, which conſiſts of Two long Syllables, as *Vertue*. 2. A *Trochee*, which conſiſts of a long Syllable firſt, and a ſhort one after it. 3. An *Iambick* Foot, which conſiſts of a ſhort Syllable firſt, and a long one after it. And 4. A *Dactyl* Foot, which conſiſteth of Three long Syllables, the firſt long, the other Two ſhort, as *Mittere*. Of a Foot. Spondee. Trochee. Iambick Foot. Dactyl.

VERSE is a Speech bound to a juſt and lawful Number of Feet, of which are Seven kinds, 1. *Hexameter* or Heroick Verſe, which conſiſts of Six Feet in Number, but of Two Feet only in Kind, a *Dactyl* and *Spondee*. The Fifth Place claims properly a *Dactyl* to it ſelf, the Sixth claims a *Spondee*, the reſt any Foot even as we pleaſe. 2. *Pentameter* or Elegiack Verſe, which conſiſts of Two *Dactyls*, or Two *Spondees* with a long Syllable, afterwards of Two *Dactyls* with another long Syllable. 3. *Phaleucick* or of Eleven Syllables, which conſiſts of a *Spondee*, a *Dactyl*, and of Three *Trochees* at laſt. 4. An *Aſclepiade* Verſe, which conſiſts of a *Spondee*, *Dactyl*, and a long Syllable, afterwards of Two *Dactyls*. 5. A *Sapphick* Verſe conſiſts of a *Trochee*, a *Spondee*, and a *Dactyl*, and of Two *Trochees* at laſt. 6. An *Adonick* Verſe, which conſiſts of a *Dactyl* and a *Spondee*. And 7. An *Iambick* Verſe, which conſiſts only of Iambick Feet. Hexameter Verſe. Pentameter. Phaleucick. Aſclepiade. Sapphick. Adonick. Iambick.

The Scanſion of a Verſe is the meaſuring of a Verſe into every or one of the Feet. To Scanning belong Six Figures, 1. *Synalæpha*, Of Scanning Verſe.

Evolviſſet, *Evohe* for *Eve*. 5. ſ
makes a long Syllable ſhort, an
which makes a ſhort Syllable long
See the Figures belonging to Or
GRAMMAR.

The moſt conſiderable Thing
Conduct and Deſign of a Poem
ever kind of Poetry it is, wheth
Epænetick, *Bucolick*, *Dramatick* o
Elegiack we have ſpoke before)
: Poetry. which all Poetick Deſign is inclu
is of the largeſt Extent, and in
is Narrative either of Thing
the higheſt Degree whereof is
This, as Tragedy (the higheſt
tick) conſiſts in the greatneſs of
and that is what makes up the
ric Poeſie. Poet. The *Lyric* conſiſts of So
Love (or other the moſt ſoft
Subject) in Verſe apt for Muſic
netick. The *Epænetick* comprehends th
pithalamium (or Nuptial Song) t
or what elſe tends to the Prai
lation of Divine, or on Earth

e to all manner of Subjects and various
aſions. *Epigram* is the humbleſt Part of Epigram.
ry, conſiſting rather of Witty Conceit, than
ical Invention.

he Dramatick comprehends *Satyr*, and her
o Daughters *Tragedy* and *Comedy*. *Satyr* is Satyr.
arling invective Poem. *Tragedy* is ſome- Tragedy.
es in Rhime, ſometimes in Blank Verſe,
ch is moſt proper and natural, ſince Rhime See Poetical Numbers in Rhetorick.
oo Stiff, and conſtrained for mutual Con-
ſation. This treats only of the Actions
Concernments of the moſt noble Heroes
Princes, whereas *Comedy* ſets before us the Comedy.
nours, Converſe and Deſigns of the more
inary Sort of People, and uſes many Witty,
oſe and Pathetical Expreſſions. *Farce* de- Farce.
ds yet lower to the Grimace and Buffoonry
he moſt ordinary Sort, and being wholly
poſed of Ridicule, and the like, never ex-
ls her ſtint of Three Acts, whereas the others
tain Five, generally allowing Tragedy, be-
ſe of its Heroicks Two Thouſand Lines,
Comedy, which is expreſſed in a more
mon and fleeting manner, Two Thouſand
e Hundred, about Five Hundred to each

The Rules of the *Drama* are beſt diſcovered
n good Obſervation, wherein Hiſtoriogra-
rs and Geographers are to be conſulted for
Concordance of Times, and Cognizance of
toms, Manners, Laws, *&c.* in Uſe among
Inhabitants of the Earth, which muſt ever
r great Conſideration as to the Scenes of
ir *Drama*. Philoſophers will furniſh you
h Knowledge of Science, neceſſary for their
aming Similies, in which you muſt put your
vention to the Teſt for adapting Matters and
ords, and often your Plot, tho' that is of-
ten

judgment, ...

ompence ſufficient, Critick
ring of their Praiſe, which,
ſtarving Qualification, is
than ſought for, yet who deſires
thereof may read Mr. *Dryden*'s
ſay upon Poeſie and other Work

To give the Reader a Reliſh
logy of Poets, and to enable
the better at many other Fab
Nature, plentiful in their Worl
inſert

An Explanation of ſome Poe

nation of
les's Twelve
urs.

Hercules *Twelve Labours.*] H
the Sun, as the Greek Name
calls him, the Glory of the Air,
Labours are the Twelve Signs
thro' which he laboureth every
the Name of *Alcydes* from Stre
ſtrong Giant he rejoiceth to
His beloved *Hebe*, Godeſs of
ring Time, wherein the Yo
re d. His overflowing

Saturn *devouring his Children.*] *Saturn* Saturn.
ſignifies Time, which cuts down as with a Sickle, and conſumes all Things.

Atlas *bearing Heaven on his Shoulders.*] Atlas.
Atlas was the Name of a King who was well skilled in Aſtronomy; tho' ſome think this Fable was occaſioned by the Hill *Atlas* in *Mauritania*, which is of ſuch height it ſeems to beat or touch the Heavens.

Orpheus *making Trees and Woods to follow him.*] Orpheus.
Orpheus was an excellent Muſician, and playing before a Company of mad Women aſſembled in a Wood, ſo pacified them, that they followed him with Boughs in their Hands.

Medea *the Sorcereſs reſtoring old Æſon.*] Medea.
Medea was a Woman well skill'd in Herbals, and had a Receipt to make White Hairs, Black, wherefore ſhe was ſaid to renew Youth. See in Remedies and Cures, *&c. Phyſick.*

Prometheus *ſtealing Fire from Heaven, &c.*] Prometheus.
Prometheus was a wiſe Man, and on the higheſt Part of Mount *Caucaſus* ſtudied the Nature of the Stars, and inſtead of putting Fire, inſtructed the dead and claey Carcaſſes of Mankind with Wiſdom, and the inward Care he had to accompliſh his Deſires, might be compared to a Vulture gnawing his Entrails, according to the Opinion of St. *Auguſtine.*

Endymion *kiſſed by* Luna *on Mount* Latmus.] Endymion.
Latmus is a Hill in *Anatolia*, where one *Endymion* found out, and ſtudied the Changes and Courſes of the Moon.

Niobe *weeping her ſelf to Stone.*] *Niobe* for Niobe.
her Pride had her Twelve Children ſlain before her Face, wherefore ſhe growing ſtiff with Grief and Speechleſs was feigned to be turned into a Stone. Others ſay ſhe Erected a Marble Tomb over her ſelf and Children while ſhe was Alive,

all Things hath Three P
Time preſent; another p
come.

Chimera. Chimæra *with the He*
and a Serpent.] *Chimæra*
vomiting Mountain in *Ly*
to the top of which Ly
midſt Goats, and at the l

Dædalus and Icarus. Dedalus *and* Icarus *l*
Dædalus being privy to th
was impriſoned, but ſtea
from *Minos* King of *Cr*
with his Son *Icarus* in
was ſplit on a Rock by
whence it is ſaid, *That fly*
(ſuppoſed to be glewed w
he fell and was drowned
lus got ſafe away. This
for Ships. See *Inventions.*

Charon. Charon *being* Ferryman
Ferryman of *Egypt*, and
boat the dead Bodies fron

Europa. Europa's *Raviſhment*
ſioned by *Europa*'s bein

nbrosia *and* ... *Drink of* Ambrosia and Nectar.
ods.] In t G t is only sig-
Immortality.

nceus *seeing One Hundred and Thirty* Lynceus.
sand Miles, thro' Stones, &c.] *Lynceus*
the first discoverer of Mines under the
h.

yx, *the River of Hell.*] *Styx* is a vene- Styx.
s Fountain in *Arcadia*, Mortal to those
drink thereof; some deduce this Word
from another which signifies Sad-

, *transformed into a Cow.*] *Io* proving Io.
Child by a *Phœnician* Mariner, fled away
Ship, which had a painted Cow upon it.

lecto, Megæra *and* Tysiphone, *the Three Fu-* Alecto, Megæra, &c.
] *Alecto* signifies want of Repose, *Megæra*,
rteth Envy, and *Tysipho* is a Greek Word
posed of Two others, signifying Vengeance
violent Death.

he Serpent Python *slain by* Apollo.] The Ser- Pytho.
Python is taken for the Ruins of Waters
Bogs, which cover the Earth, and seem to
over it; but *Apollo*, which is the Sun, be-
ing great, and dispersing the Vapours of
Regions of the Air by his Arrows or Beams,
the Serpent. Some take it, that *Apollo*
g the God of Wisdom, does by good pre-
d Medicines destroy all poisonous Diseases
he Body of Man, which is signified by the
nous Serpent *Python*.

urora, *Daughter of* Titan *the Sun, and God-* Aurora.
of the Morn'.] *Aurora* sometimes signi-
the East, and is to be understood that
of the World where the Sun appeareth at
Rising upon our Horizon, and therefore is
y the Poets named also Daughter of the
, because sh neth to Issue from the Earth.

Castor

He who is deſirous to r
Fables, with the Explica
peruſe the Third Chapte
of the Mythology of
Eighth Book of the Hiſto
of *Lilius Gyraldus*, *Catari*
Gods, and *Roſſe's Miſtagog*

To the Art of Poetry
of making *Anagrams* and

Of Anagrams. *Anagrams* are the diſpo
any Name into Words,
Diſpraiſe) as of *Carolus*,
'tis the inventing Word
invertedly, or backward.
act Senſe as forward, as

Lewd did I live, E
Feeler I was no ſo, O

Alſo

Odo tenet mulum, *madidan*
Anna tenet mappam madid

her in Wor… your Inve…n and a good Senſe.

Acroſticks are a ſort … Poetry, the firſt … of Acroſticks. Letter of every Line b… read downwards, makes ſome particular … ne, or brief Sen- tence. In the Name *Eli… th*, an *s* inſtead of *z* is uſually allowed for t… Grace of Stile.

The Chief Poets.

Have been, 1. *VIRGIL*, Prince of the *Latin* Poets, whoſe Name hath reared beyond Imitation, and who ab… other only deſerveth the Name of a… et, as his *Æneas* ſufficiently Teſtifies; h… ever, it eſcapes not uncenſured by ſome. This Poem he left in the Cuſtody of ſome Friends, (at the Time of his Death) in order to be Burnt. But *Auguſtus Cæſar* committed it to the Cuſtody and ſtrict Care of *Lucius Varius* and *Plotius Tucca*, with Command that nothing ſhould be altered. He was the Son of *Maro*, a mean Perſon, (ſome ſay a Potter) and *Maia*, (whoſe Dream of her bringing forth a Lawrel-Branch boaded very ſignificantly) Born in the 177th Olympiad, in the Ides of *October*, at *Andes*, a Village not far from *Mantua*, whence he is ſtiled the *Mantuan-Swan*. His *Eclogues* and *Georgicks* are alſo in great Eſteem. The Chief of the Latin and Greek Poets. Publius Virgilius Maro.

2. *OVID*, his Contemporary and Second, tho' he confeſſeth he never ſaw *Virgil* but once in all his Life, and was a worthy Poet, as his *Metamorphoſis*, *Epiſtles*, (which are his neateſt Piece) *Faſti*, *Triſtia*, *Amores*, &c. do Evidence. He was Baniſhed by *Auguſtus* for his over Familiarity with *Julia*, Daughter to that Emperor, for whoſe ſake 'tis believed he wrote his *Arte Amandi*. Publius Ovidius Naſo.

3. *HO-*

3. *HORACE*, an Illuſtrious *Lyric* P
Venuſium in *Apulia* (Son of a Salter, a
ſay.) He is held in higheſt Account of
Greek and *Latin* Poets, for his *Lyrick*
and his *Odes*, *Epiſtles*, *Satyrs*, *Sermon*
Art Poetick, will Juſtify for his Deſer
was alſo contemporary with *Virgil* and
and grew into ſuch great Favour with
ſtus, that from his Poverty, he at his
made *Auguſtus* Heir to what he had,
was contained in a Farm in the *Sabine*
tories, dying in the 56th Year of his A

4. *JUVENAL* of *Aquinum*, a T
the *Volſci*, flouriſhed in the Time of t
peror *Domitian*. A moſt Elegant *Latin* S
as appears by his Sixteen *Satyrs* extant.

5. *MARTIAL*, a Native of *Bilbil*
Bilboa) in *Cantabria* (now *Biſcay)* in
He was by *Domitian*, with whom he

Seven Ye s, but *Porphyrius*, One
ed and Thirty Years. He is the moſt
ied of *Greek* Heroick Poets, and (as is
nerally alledged) the enteſt of thoſe,
Works we have entirely Extant, as we
is Two Heroick Poe *Ilias* and *Odyſ-*
e firſt deſcribing t *Trojan* War for
t Nine Years, the other the wandring
Ulyſſes, after the Taking of *Troy*; not
tion his *Hymns*, his *Batrachomyomachia*,
ner ſmall Poems, many of his Verſes up-
eral Accidents and Occaſions, are to be
in *Herodotus*'s Life of this famous Poet.

ERSIUS, an Eminent Satyriſt, who — Aulus Perſius Flaccus.
ed under *Nero*; there are Six *Satyrs* of
tant, which are commonly ſet forth in
me together, with *Juvenal* mentioned

MPEDOCLES of *Agrigentum*, a — Empedocles.
of Natural Philoſophy in Heroick

LUCAN, by ſome, equalled with *Virgil.* — Lucan.
SENECA, who yields to no *Grecian* — Seneca.
hatſoever.
CLAUDIAN, Author of *Proſerpina*'s — Claudius Claudianus.
&c. for his Eminency in *Latin* Poetry,
Statue erected by *Arcadius* and *Hono-*

STATIUS, a *Neapolitan*, flouriſhed — Statius Papinius.
Domitian; he wrote *Thebais*, *Achilles*, and
The firſt commented upon by *Placidus*
ius, and his laſt thought, by ſome, to
e ſhort of *Virgil*'s Verſe, and to contain
Lines than in *Homer*.

PROPERTIUS, an Elegiack Poet of — Sextus Aurelius Propertius.
, of whoſe Poetry, what is Extant, is
nly publiſhed with the Poems of *Ca-*
and *Tibullus*.

15. *PLAUTUS*, that witty Come
Sarſinæ in *Umbria*, whom, in a great n
we yet enjoy, *viz.* in Twenty Comedi
16. *TERENCE*, an Elegant *Latin*
known by his Books, *De re Ruſtica*, *De*
Latina, *Satyræ Minippeæ*; ſeveral other
in Proſe are loſt, as well as ſome of hi
whereof ſome are ſeen in the *Pariſian*
ction, Entituled, *Epigrammata & Poem*
tera, and *Brietius*, his *Acute Dicta.*
highly extolled by *Cicero* in his *Tuſcula*
ſtions. There were alſo *Publius Te*
Terentius Maurus, and other Poets.
17. *MENANDER*, an *Athenia*
Son of *Diopithes*, firſt Author of *Nova*
dia, ſaid to have written One Hundr
Eight *Fables*, and in Eight of them to
ctor. Very many of his Comedies are

Famous Engliſh *Poets*

Are hardly to be Enumerated, eſpecially to give an Account particularly of the Poems and Works of each, would require an Age, rather than an Hour to Recite, and whole Tomes rather than a Tract to contain. The Principal and moſt Noted of the Moderns, are, Engliſh Poets.

1. *Buchanan*, whoſe Tragedies are lofty, and Epigrams not to be mended. Buchanan.

2. *Joſeph* of *Exeter*, who lived under *Henry* II. and wrote the ſtately Poem of the *Trojan* War. Joſeph of Exeter.

3. Sir *Thomas Moor*, under *Henry* VIII. who wittily play'd upon the Arch-Cuckold *Sabinus*, Scoffs at *Lalus* and *Harvey*, and wrote a Congratulatory Poem to King *Henry* upon his Coronation-Day; alſo a witty Epigram upon *Nicolaus*, an Ignorant Phyſician; and *Abingdon*'s Epitaph; alſo thoſe ſweet Epiſtles to his Daughters, *Margaret*, *Elizabeth*, and *Cicely*. Sir Thomas Moor.

4. *William Lilly*, who lived in the ſame Time, and was Author of our Grammar, ſaid by *Balæus*, to have written Epigrams, and other *Latin* Poetry. William Lilly.

5. Sir *Thomas Chancellor*, ſent by Queen *Elizabeth*, Ambaſſador into *Spain*, where he at Leiſure Hours compiled Ten Books in *Latin* Verſe, *De Repub. Anglorum inſtauranda.* Sir Thomas Chancellor.

6. Sir *Jeffrey Chaucer*, who flouriſhed in the Reigns of *Henry* IV, V, and VI. and was Poet *Laureat*. There are many of his Works loſt, beſides thoſe Publiſhed, which alſo contain not *The Squire's Tale*, ſaid to be Compleat lately in *Arundel* Houſe Library. Sir Jeffrey Chaucer.

wer. 7. Sir *John Gower*, little Inferior to
cer, to whom he was Contemporary, ar
ceſſor in the Lawrel. Some blame him
fecting the *French* Phraſe and Words
Chief Works were *Votum Meditantis*,
ſio Amantis, and *Vox Clamantis*; which
ing Printed in the Reign of *Henry* V
not yet wholly extinguiſhed, the othe
are not to be ſeen any where, unleſs i
Eminent Libraries, where perhaps they
be found.

gate. 8. *John Lydgate*, an *Auguſtine* Monk
Edmundsbury, who writ that bitter Sa
Piers Plowmen. He alſo wrote Odes, Ec
and other Satyrs and Poems.

ing. 9. *John Harding* wrote a Chronicle i
liſh Verſe, and lived in the Reign
ward IV.

hes. They flouriſhed in Queen *Mary*'s,
he beginning of Queen *Elizabeth*'s Reign.
John Haywood, famous for his Merry ams. John Haywood.
Doctor *Phaer*, who, in Parts, Tranſlated 's *Æneas*, (after finiſhed by *Arthur Gold*nd lived about Queen *Mary*'s Time. Doctor Phaer.
d Infinite others, as *Abraham Cowley*, *am Trance*, *Alexander Brome*, *Anthony r*, Sir *Aſton Cockain*, *Bartholomew Tra-*, *Barton Holyday*, *Benjamin Johnſon*, *Chri-r Marlow*, *Chriſtopher Ocland*, *Edmund ix*, *Edmund Preſtwich*, *Edmund Spencer*, *nd Waller*, Sir *Edward Dyer*, *Francis Beau-* *Francis Quarles*, Sir *Foulk Grevil*, Lord ; *Faſper Mayne*, *George Bullen*, Lord *rd*; *George Chapman*, *Fletcher*, *Etheridge*, *ign*, *Herbert*, *Peel*, *Ripley*, *Sands*, *Withers*, *Glapthorne*, *King*, *Vaughan*, *Humphrey* *James Shirley*, *Stuart*, *John Baleus*, Sir *Davis*, Sir *John Denham*, *John Downe*, *n*, *Fletcher*, *Ford*, *Hall*, *Hanviſe*, *Hoddeſ-* *Lane*, *Leland*, *Lilly*, *Marſton*, *Milton*, *Philips*, *Suckling*, *Webſter*, *Wilſon*, *Lu-epherd*, *Martin Lleuillin*, *Michael Dray-Nicholas Kenten*, *Philip Maſſinger*, Sir *Phi-lney*, *Phineas Fletcher*, Sir *Ralph Freeman*, *d Braithwait*, *Richard Brome*, *Richard Cor-Richard Craſhaw*, Sir *Richard Fanſhaw*, *Ri-* *Rablet*, *Turner*, *Lovelace*, *Robert Baron*, *berlain of Glouceſter*; *Gomerſal*, *Green*, *b*, *Herrick*, Sir *Robert Howard*, Dr. *Robert* *Robert Mead*, *Samuel Daniel*, *Rowley*, *ford*, *Shakerly*, *Marmion*, *Thomas Campion*, *w*, *Churchyard*, *Collins*, *Deckar*, Sir *Tho-* *Eliot*, *Thomas Flatman*, *Goff*, *Hobbs*, *Kid*, *acer*, *Lodge*, *Manly*, *May*, *Middleton*, *Naſh*, *bes*, *Newton*, *Preſton*, *Randol*, *Rawling*,

William Congreve, [illegible]
therne, Mr. *Crowne*, Mr. *Elkanah*
Thomas Durfey, Mr. *Charles Hopkin*
liam Ravenſcroft, Mr. *Granville*, M
Mr. *Dennis*, Mr. *Vanbrook*, Mr. F
Baker, Dr. *Garth*, Mr. *Cibber*, Mr.
Ward, Capt. *Biſhe*, and the unkno
of *Faction and Moderation Diſplayed.*

Famous Engliſh *Poeteſſes.*

b Poeteſſes. 1. *Helena Flavia*, Daughter of C
of *Britain*, and Mother to *Conſtanti*
peror. *Balæus* mentions, among
Works, her Book of *Greek* Verſes.

ne Askew. 2. *Anne Askew*, Daughter of *Wi*
of *Lincolnſhire*, lived in Queen *Ma*

Broadſtreet. 3. *Anne Broadſtreet*, a *New-Engl*
ſome of her Works were Printed ir
Anno 1650. Her Poems were Dei
the *Four Elements*, *Four Humours*,
Four Seaſons, and *Four Monarchies*.
not yet quite Extinct.

8. Lady [illegible] *Carew.* Carew.

9. Mrs [illegible] *Weston*, in some Esteem with *Farnaby*. Elizabeth Weston.

10. Lady *Jane Gray*, Daughter to the Duke of *Suffolk*, once proclaimed Queen of *England*. See *Edward* VI. in our Chronology of *England*. Lady Jane Grey.

11. *Margaret*, Dutchess of *Newcastle*, who hath left Three Volumes in Print; One of Orations, One of Philosophical Discourses and Notions, and One of Dramatick and other kinds of Poetry. Margaret, Dutchess of *Newcastle*.

12. *Mary*, Countess of *Pembroke*, Sister to the Incomparable Sir *Philip Sidney*, whose *Arcadia* was consecrated to her Virtuous Inclinations to Poetry. Countess of *Pembroke*.

13. Lady *Mary Wroth*'s *Urania*. Lady Mary Wroth.

14. *Mildreda Cook*, and Lady *Russel*, both Daughters of Sir *Anthony Cook*. Mildreda Cook, and Lady Russel.

Several BOOKS *relating to the Art of Poetry.*

Scaliger de Arte Poetica, *Blount*'s Remarks on Poetry, Lord *Roscommon*'s Art of Poetry, *Dryden*'s Essay on Dramatick Poesie, *Rhymer* of Tragedy, Poetical Recreations, *Gradus ad Parnassum*, *Historia Poetica*, *Thesaurus Poeticus*, *d'Assigny*'s Poetical Histories, *Aristotle*'s Art of Poetry, *Horace*'s Art of Poetry. *Bishe*'s Art of Poetry.

Of LOGICK.

OGICK is the Art of Diſputing well, and was always in ſo great Eſteem ong the Ancients, that ſome of them ad- ed it as a Thing inſpired from Heaven, looked upon them as raiſed above the ndition of Men, who underſtood the Rules it. The Philoſophers of old have beſtowed eral Names upon it, and meaſuring the gnity of it by its Neceſſity, have called it *Medicine* of the Soul, the *Organ* or *Inſtru- nt* of Sciences, and the *Eye* of the Mind, is certainly very neceſſary for the attain- of all Sciences.

Logick is natural to all Mankind, becauſe nothing elſe but the uſe of our Reaſoning

Beſides the Diviſion of *Logick* into Natural and Artificial, there is another common Diviſion of it into Doctrinal and Practical. Doctrinal is that which delivers the ſeveral Rules directing us in Perceiving, Judging and Reaſoning. Practical is that which applies thoſe Rules to Uſe and Practice; for which reaſon the Ancients called the former *Abſtracted* or *Separate* from Things, but this latter *Concrete* or *Joyned* to the Things themſelves we are diſcourſing of. Diviſion of Logick.

Concerning the clear and diſtinct Perceptions of Things, for the attaining of Truth, the following Points are heedfully to be minded.

Firſt, What *Cogitation* it ſelf, or *Perception* is, and what the Modes be of it. Now by *Cogitation* is underſtood all thoſe Things which we experience in our ſelves, and whereof we are conſcious, which Deſcription comprehends all the Operations of our Underſtanding, Will, Imagination, and Senſe; for to Underſtand, to Will, and to Imagin, is nothing elſe but to repreſent to our ſelves the Thing whereof we have an Idea. There are Three Species of *Cogitation*, Pure Intellection, Imagination, and Senſe; for by theſe Three Modes or Ways, the Mind of Man Perceives or Thinks.

Secondly, What be the Objects of our *Perceptions*, whether Univerſal or Singular.

Thirdly, How our Mind may arrive to the Knowledge or *Perception* of Things, with reſpect had to the Things that are to be known; ſuch as are the common Attributes, Cauſes, Effects, Subjects, Adjuncts, *&c.*

Fourthly,

clusion must necessarily be
was already implicitly
who admitted of the Pre
dent in the *Syllogiſm*, *Ev*
Creature; *Peter* is a M
Living Creature.

Its Two Chief Principl
de omni, and *Dictum de nu*
eth that whatever is gene
Thing, may likewiſe be
ever is contained under t
ſay, *Every Animal is a L*
it follows, that a *Bird i*
The ſecond ſignifieth, tha
rally denied of any Thing
of whatever is contained
as if I ſay, *No Animal*
may, and ought likewiſe
Stone, &c. But now 'tis

The Predicables. Genus.

The Five *Predicables* o
wiſe called the *Five Commo*
the general Word which
yet differ in Kind, as *An*
ture; *Gemma*, a Precious
neral Word is two ways

duals, as M*Charles* and *James*; the middlemoſt, tho' with reſpect to the *Genus* under which it ſtands to be called Species, yet with reſpect to the Inferiors of which it is predicated, it is a *Genus*; ſo *Animal*, which is the Species of Living Things, is the *Genus* in reſpect of Man or Beaſt. III. *Predicable* is *Differentia*, the Difference, which is the ſame that is ſpoken of many which differ in Form and Kind, when the Queſtion is aſked what manner of Thing it is; as when we ſay, *Quale quid eſt Homo?* What manner of Thing is Man? We anſwer, *He is endued with Reaſon.* If the Queſtion be aſked, What Man is? We anſwer by his *Genus*, *He is a Living Creature.* IV. *Proprium*, the Property is taken in a Fourfold Senſe; Firſt, The Property is that which agreeth to ſome Kind only, altho' not to every Perſon comprehended under the ſame Kind; as it is proper to a Man only to be a Phyſician, or a Poet, and yet not proper to every Man. Secondly, That which agreeth to every ſingular Perſon, and yet not to a Man only. Thirdly, That which agreeth to every Man, and to Man only, and yet not always. As Hoary Hairs in old Men agreeth to Man only, and yet not always, but for the moſt part Men have Hoary Hairs in their old Age. And Fourthly, That which indeed is moſt aptly and chiefly called *Proprium*, when any Thing doth agree to every Man, to Man only, and always to Man. As to be able to Speak, Laugh, go Upright, agreeth to every Man, Man only, and always to Man; yet if any object, ſome Men go Crooked, are Dumb, *&c.* this Rule ſheweth to avoid ſuch Objections, *Verba in definitionibus poſita, non Actum, ſed potentiam ſignificant*; which is as much as to ſay,

Differentia.

Proprium.

A Rule to avoid Objections in Logick.

That Words uſed in Definitions, d
ify the very Act in Deed, but the P
Aptneſs, or the Inclination of N
eunto. V. *Accidens*, the Thing cha
cleaving to the Subſtance, and all t
ed Accident, which is not Subſtance,
doth neceſſarily agree, but doth
ingently follow the ſame; as Roun
rdneſs, *&c.* are common Accidents,
ect to a Body, as Sorrow and Fear a
nts, with reſpect to the Soul or Minc
ident is Two-fold, ſeparable, which
aſily ſeparated from the Subject in
s conceived to be, as Sleep from Man
parable, which cannot be ſeparate
ckneſs from a Negro.
The Order of the higheſt *Genus*, and
t are Subaltern, as alſo of the *Specie*

The Words which follow from Subſtance to Man, are called intervening Genus's, and thoſe on the Right and Left, are the Differences which are ſaid to be in an indirect Line. From thoſe Words which are diſpoſed in a direct Line, they make the Series in a twofold manner, either by *Analyſis* or Diviſion deſcending, beginning from the higheſt Genus, which is Subſtance, and diſtributing it, and all other Genus's that reſort under it, into their Species, by their difference, till we come to the Individuals. The other is by Way of Syntheſis aſcending, beginning from the Individuals, and from them mounting to the Subaltern *Genus*, and laſtly to the higheſt *Genus*, *viz.* Subſtance.

Logicians reckon up Ten *Predicaments*; a Predicament being an Order of ſingle Words, wherein Things of one Kind are comprehended under one Word which is moſt general; theſe they call moſt general Genus's. And each Predicament is divided into Subſtance being a Subſtance indeed, and Accident as not being of the Subſtance but declaring thereunto. The Predicaments are, The Predicaments.

1. *Subſtantia*, the Subſtance divided into Firſt and Second Subſtance. *Subſtantia.*

2. *Quantitas*, the Quantity, which is the greatneſs of a Thing, or the Number. *Quantitas.*

3. *Qualitas*, the Quality, is a Form or Shape of the Body, and is of Three Sorts, the Habit in a Thing, the forwardneſs in any Thing, and the full attaining of any Thing. *Qualitas.*

4. *Relativa*, the Relative hath a mutual Reſpect with another Thing. *Relativa.*

5. *Actio*, is the manner of doing any Thing, and is either Natural or Voluntary. *Actio.*

6. *Paſſio* or *Perpeſſio*, the ſuffering a Thing to be done *Paſſio.*

7. *Quando*

mentum, that is a Covering o
One, as to have a Coat, *&c*

The Uſe of the Predicaments.

The Uſe and Commodity
ments, is to define any W
proper Nature of the ſame.
if you will know what M
have recourſe to *Subſtantia*,
learn by the ſame Place, tha
Creature endued with Rea
know what Virtue is, you m
cament *Qualitas*, and there w
is a conſtant Habit of the M
define the Nature of a Fa
tiva, and thereby you ſhall
Father that hath a Son. He
a Servant, *&c*. Wherefore t
are the Store-houſe for thoſ
any Word, or give a natu
where they may find Matt
their Uſe and Service.

In *Logick* it is neceſſary
learn diligently the Defini
of every Matter that by Re
prehended; and Definition i

and his Difference joined to-

Proposition or *Enunciation*, according to Enunciation.
is an Oration or Speech, which af-
or denies, or an Oration that signifies
true or false. Proposition is either Af-
tive or Negative: That is an Affirma-
Proposition in which the Subject and At-
are joined or do agree; and Negative
ch they are disjoined or disagree; and
of a Proposition is when Men by oc-
of Discourse fall at Variance and can-
upon their Matter, being both ear-
know the Truth, they bring the Mat-
Point, debate that, and then go on to
--This the *Logicians* call a *Proposition*,
Rhetoricians, *Stating of the Case*. There
icular and Singular, as well as Univer-
positions.

Propositions called General or Uni- General Proposi-
are known by these Signs, *Omnis*, tions.
Quilibet, *Nemo*. Every covetous Man
; no Man can Love and be Wise at

ular Propositions are known by these Particular Propo-
Quidam, *Aliquis*, *Plerique*, *Plerunque*. sitions.
Men are too much desirous of Glory. A
Man; some Body.

nite Propositions. The Soul is immor- Indefinite Propo-
g Men are Riotous, *&c.* sitions.

ular Proposition is when a proper Singular Propo-
a Man is contained therein: As *Cicero* sitions.
or; *Alexander* is a Warrior.

contrary Propositions are those General contrary
one doth generally affirm, the other Propositions.
rally deny. All Men are, *&c.* No
, *&c.*

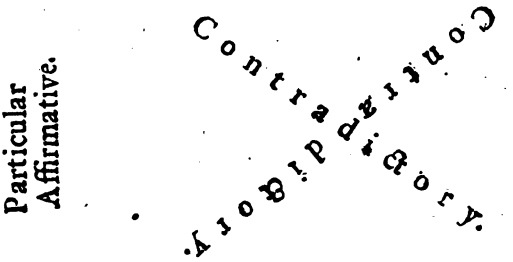
Particular

Categorical Propoſitions may be
poſite Four Ways; Contrarily, Su
Subalternately and Contradictorily

TABLE of Repugnant Propo

l Men are mov'd with Glory. — No Man is Gl

Contrariety.



Subcontrariety.

me Men are mov'd with Glory. — Some Men a with

Concluſion [illegible] inor and Major Terms are [illegible] ntation in general is divided into Perfect [illegible] Imperfect. Perfect Argumentation is a [illegible]ſm, which for as much as it conſiſts of Three Propoſitions duly diſpoſed, is of a perfect Form and moſt proper to perſuade. An Imperfect Argumentation is either an *Enthymeme*, an *Induction*, an *Example*, a *Dilemma* or *Sorites*.

Of Syllogiſms, Some are Simple, others Conjunct, and there are reckoned Twenty One Modes of Syllogiſms which may be reduced to Fourteen: The Modes of the Firſt Figure are *Barbara, Celarent, Darii, Ferio.* Of the Second *Ceſare, Cameſtres, Feſtino, Baroco.* Of the Third, *Darapti, Felapton, Diſamis, Datiſi, Bocardo, Feriſon.* Syllogiſm.

Example of the Firſt Figure.

Barbara. Every Body is extended.
Every Stone is a Body.
Therefore every Stone is extended.

Example of the Second Figure.

Ceſare. No Stone is a Plant.
Every Oak is a Plant.
Therefore no Oak is a Stone.

Example of the Third Figure.

Datiſi. Every One that ſerves God is a King.
Some One that ſerves God is Poor.
Therefore ſome One that is Poor is a King.

An *Enthymeme* ſeems to have taken its Name from this, that it expreſſeth only one Propoſition, Enthymeme.

ſay,

I was able to Save thee,
And therefore able to Ru

duction. *Induction* is an Argumentation
many Singulars concludes an Uni

This Man is a Living Creatur
That Man is a Living Creatu
Therefore every Man is a Livi

Example. *Example* is a kind of Argumen
fect, whereby from one Singular v
other, becauſe of a likeneſs of R
between them. As,

Cataline *was puniſhed for making*
Therefore this ſeditious Fellow ſhou

Sorites. *Sorites* is an Argumentation
Propoſitions ſo diſpoſed, that the
the foregoing Propoſition become
of the following; whence the laſ

They who want many Things are Miſerable; therefore Covetous men are Miſerable.

A *Dilemma* is an Horned Argument, and is when the Reaſon conſiſteth of repugnant Members, ſo that whatſoever you grant you fall into the Snare: As, Dilemma.

Tribute muſt be given to Cæſar *or to God:*
If to God, then not to Cæſar, *and this is Treaſon:*
If to Cæſar, *then not to God, and this is Sacrilege.*

Demonſtration is a Syllogiſm conſiſting of Premiſes that are True, Immediate, Prior, more known, and Cauſes of the Concluſion, and is Twofold, the one *à Priori*, and the other *à Poſteriori*. Demonſtration.

A *Topical Syllogiſm*, which is alſo called *Suaſory* or *Opinable*, is that which concludes from Probables, and 'tis commonly ſaid that a Topical Syllogiſm doth perſuade indeed, but doth not force one to Aſſent as a Demonſtration doth. A Topical Syllogiſm.

A *Sophiſtical* or *Paralogiſtical Syllogiſm*, which with one Word is called a *Sophiſm*, is a Syllogiſm conſiſting of falſe Propoſitions, which yet have an Appearance of Truth, or is a Syllogiſm that begets Error; as for Example: A Sophiſtical Syllogiſm.

All Lines drawn from one Point to another are equal.
But a Right and a crooked Line may be drawn from the ſame Point to the ſame Point;
Therefore a right and crooked Line are equal.

As for the cavilling Part, which conſiſts in Words that are called *Fallacia Dictionis* or Fallacy in Words, which frequently conſiſt in the Homonymy of the Words, when Things altogether *Fallacia Dictionis*

my is the doubtfulneis of a word
divers Significations.

Method. Concerning *Method*, or the or
tion of our Thoughts; for as m
was found out for the attainin
and that our Thoughts can har
formed without its Aſſiſtance.
to be neceſſary to aſſiſt and a
Mind in the Knowledge of Thi
ſtinguiſhed as follows.

ytical Method. *Analytical Method*, or the M
lution, ſhews the true Way by v
was Methodically and Primaril

nthetical Method. *Synthetical*, or the Method
clearly demonſtrates what hath
but by an oppoſite Way, and fe

Compoſing. The Method of Compoſing
cauſe it makes uſe of General
Things, to come to Things Parti
pound.

tical Method. Genetical Method teacheth u
courſe upon any Theme, and

or the Po[illegible] in Creating the World, I consider [illegible] that is Simple or Incomplex. But when I set before me this Sentence, *God Created the World* (any other Propoſition whereby any Thi[illegible] irmed or denied of another) I think of [illegible] ning that is Conjunct or Complex.

The handling of a [illegible] *le Theme* conſiſts in the ſeeking of Argum[illegible] that may declare a *Simple Theme*, and the [illegible] poſing of them in due Order. I. To examin[illegible] the Word of the Theme, whether it be derived, [illegible] id if ſo to give its Etymology. 2. Whether [illegible] it be Ambiguous, and then its various Signi[illegible]fications are to be Enumerated and Expound[illegible]d. 3. Whether it be Abſtract or Concrete. II. In the Second Place we muſt enquire into the Genus which may be ſeen in the Table before, repreſenting all the Genera and Species. III. We muſt enquire into the Cauſes. IV. The Effects are to be conſidered, not every one, but ſuch as are Memorable and worth the mentioning. V. The Adjuncts are to be handled according as the Theme is, whether Univerſal or Proper; as alſo, the Antecedents and Conſequents. VI. Definition. *VII.* Diviſion, whereby the Subject is divided into its Integral Parts if the Theme be an Integral Whole, or into Species, if it be a Genus. VIII. Comparates or Things that agree in Quantity or Quality. Laſtly, Oppoſites are ſubjoined to all theſe, and are of conſiderable Uſe according to that common Saying—*Contraries ſet together illuſtrate each other.*

Simple Theme.

A Complex Theme or Propoſition, is genetically demonſtrated from the Subject and Prædicate, which as two Integral Parts, do conſtitute the ſame; becauſe by them it is judged whether a Propoſition be True or Falſe, Uni-

Complex Theme.

q Accidentis. *Fallacia Accidentis*, is when one Thing, is referred both to Subſta dent.

That ſame which Fleſh is, Fi
Fleſh is Food.
Therefore Fiſh is none.

dum non cau- ut cauſam. *Secundum non cauſam ut cauſ* Cauſe not able to prove the Matt in, as tho' it were of force, bu conſidered the Fault is ſeen.

Drunkenneſs is Evil,
Ergo, *Wine is naught.*

ciaConſequentis *Fallacia conſequentis*, when t *i. e.* the latter Propoſition is ev the Antecedent.

Evil Deeds purchaſe De
Ergo, *goods Deeds purc*

Plures Interrogationes, is whi

Ignora[illegible]chi, is the miſtaking of contra- *Ignoratio elenchi.*
dictory P[illegible]ontions, as,

To eat Fleſh is good for Health's ſake.
To eat Fleſh is not good when Offence may follow:
Ergo, *to eat Fleſh is good, and not good.*

To avoid falſe Arguments, we muſt obſerve diligently the framing of the Matter, and ſee to put the ſelf ſame Thing into another manner, by making a clear contrary Example; As,

Such a One is an honeſt Man, for I ſaw him him once give Alms.

Anſwer. Such a One is no Drunkard, for I ſaw him once Sober.

By which, and the like true Diſtinctions and Objections, you may diſcover the Fraud or Inſtability of an Argument, alſo Faults in Definition, and the like.

Crocodilites, is a Subtilty uſed ſo, that being asked before what we will ſay, the ſame is turned to our Prejudice; as Logicians feign

A *Crocodile* took a Woman's Child, and ask'd her (after this manner) a Queſtion: *I will give thee thy Child if thou wilt ſay Truth, and tell me whether I will give thee it again or no?* She anſwered, *I know thou wilt not give me my Child again, therefore it reaſon is I have it, becauſe I have ſaid Truth. Nay*, ſays the Crocodile, *I will not give it thee again, becauſe thou may'ſt be ſeen to have ſaid Truth, leaſt giving it thee again had made thee lye: Neither would I have given thee thy Child again if thou had'ſt ſaid otherwiſe, becauſe then thou had'ſt not ſaid Truth.* See *Dilemma* before. Croc[illegible]es.

Antiſtrephon, is to turn a Man's Saying upon him again; in Latin call'd *Inverſio.* Antiſtrephon.

ring. Or to accuse an inno

Utis. *Utis*, is when one goeth to and his Proof is uncertain : would prove: As, A Thunder as the Motion of the Sun. the Sun fixed in the Firmame the Copernican Syſtem; ſo t uncertain to prove his Argum

Pſeudomenos. *Pſeudomenos* is a Lying Arg ſoever is ſaid is yet amiſs. who was born in *Crete*, ſaid were Lyers. If he ly'd the Lyers; if he did not Lye (ſaying (all) included himſelf, made himſelf a Lyer in ſpeak

Georgius Leontinus was the take to diſcourſe in a publick Subject ſhould be offered to *VENTIONS.*

AUTHO

Ariſtotle Arri... Rufinus.

Of RHETORICK.

RHETORICK is the Art of Oratory or Eloquence, an Art by which *Cicero* uſed to ſway the Senate of *Rome* juſt as he would himſelf, and was therefore called King. Its chief Parts are Five, Invention, Diſpoſition, Elocution, Memory and Pronunciation. By Oratory *Cato* provok'd *Ceſar*, *Cicero*, *Anthony*, *Demoſthenes Philip* to the Ruin of their Countries.

In *Invention* we muſt conſider what we are to invent, by what Arguments to confirm the Matter, and from what Topicks or general Heads theſe Arguments muſt ariſe; which laſt is conſidered in its Definition, Diviſion, Notation, Conjugation, Genus, Species, Similitude, Diſſimilitude, Contraries, Oppoſites, Compariſon, Cauſes, Effects, Adjuncts, Antecedents, Conſequents. Now of the Of Invention.

1. *Definition* is a Speech explaining or declaring what a Thing is: The Parts whereof, according to Logicians, are Two; 1. The *Genus*, or general Name agreeing with the Thing defined, *&c.* 2. The Difference or particular Name, which doth only agree with that which is Defined. Definition.

2. *Diviſion* is the diſtribution of the Matter propounded into Parts. Diviſion.

3. *Notation* or Etymologie, is the Interpretation and Derivation of the Thing. Notation.

4. *Conjugation* is diſtinguiſhing Singular and Plural, *&c.* Conjugation.

5. A *Genus*, comprehends ſeveral Things under it, which are really different from one another. Genus.

6. A *Species*, is that which may, with other Things, be referred to one common *Genus*. See *Genus* and *Species* in LOGICK. Species.

7. *Similitude*

ith another, id is equal o

Causes. 12. *Causes*, are Things by
in any sort produced, and
which maketh the Thing, M
Thing is made; Formal, by
is what it is; and Final, that
is made.

Effects. 13. *Effects* are such Thing
by their Causes.

14. *Adjuncts*, are such Thi
Quis? the Thing or Person, by *Wh*
Quid? Quality of the Person, *&c.*
an Inquiry after the Natu
Ubi? Quibus. *Where?* Denoting the Place.
Auxiliis? Noting Enquiry of who joi
Cur? Quomodo? *Why?* With what Intent.
ner of doing it. *When?* The
Quando? was done.

15. *Antecedents*, are such
before the Thing or Matter.

15. *Consequents*, are such
cessarily follow after the Thi

Every Theme or Propositio

tural acc[illegible] N[illegible]ure, or Artificial for Delight o[illegible] | Diſcourſes are either of Perſons, Thin[illegible] Facts; in Perſons are conſiderable, thei[illegible] l[illegible]icen[illegible] N[illegible] i[illegible], Sex, Age, Fortune, Manner[illegible] [illegible]n, [illegible]tions, *&c.* In Things, that [illegible]as a[illegible]tances [illegible]a Qualities, the *An ſit*, *Quid ſit*, [illegible], [illegible]otuples, *&c.* its Genus, Specie[illegible] Pro[illegible]r[illegible] *&c.* In Facts, the Cauſe, Place, Inſtrur[illegible] *&c.* The natural Parts of a Diſco[illegible]a 1. An *Exordium* or Preface. 2. Declar[illegible] proving the Poſitions. 3. Refuting the co[illegible]ry. 4. A ſhort Recapitulation; and 5. C[illegible]uſion called *Peroration*. And in this *Per[illegible]ion* the Orator ſhould very much endeavour to ſet an Edge in the Mind of his Auditors and be of his Side; for a good Orator ſhould not only pierce the Ear and allure the Eye, but alſo invade the Mind of his Hearer, the better to effect which, *Enumeration* is required, that the Arguments more largely opened in the former Diſcourſe, may be clearly repeated under a new Form of Words. And *Amplification* for enlarging with Adornments of Figure, the Repetition ſo made.

Exordium.

Peroration.

Enumeration.

Amplification.

Elocution is an Elegant Order of Words and Sentences uſed in the Utterance, and is performed by the fine manner of Words, called a *Trope*, or by the fine Frame of Speech called a Figure. In a *Trope* is to be conſidered, 1. The Affections, and 2. The Kinds. The Affections of a *Trope* are Four, 1. *Catachreſis*, when a Word is abuſively put for another, as, *He Threatens me a good Turn.* 2. *Hyperbole* expreſſing a Thing in the ſuperlative or higheſt Degree, *That in Deſcending we may find the Truth.* 3. *Metalepſis*, that containeth many *Tropes* in one Expreſſion, as when we by an improper Speech ſignifie firſt that which is improper,

Elocution.

Trope.

Catachreſis.

Hyperbole.

Metalepſis.

Irony. a Thing ſpoke fleering, o
ot what we mean; as, O
Paralepſis. Purpoſe? When indeed he ha
is a kind of Irony, when w
that which notwithſtanding
Apophaſis. *Apophaſis* is another kind of
we deny to ſay or do what
Metaphor. earneſtly. 3. A *Metaphor* (
ſcriptions) are Similitudes o
we endeavour to paint a Th
ſtrating, or expreſs our ſelve
is of the like Signification w
Synecdoche. 4. *Synecdoche* by which a P
Whole, or the Whole for a P
Figure. A *Figure* is a kind of El
the Form of a Speech is cha
and plain Uſe, and is eith
Sentence: Of a Word, is
Oration or Speech is comp
and ſuitable to one another.
Poetical Number. by the ſweet Number of Sou
ber is either Poetical or Or

long or ſhor… Poeti… Number Meaſur.
conſiſting c… the laſt
Foot hath the laſt Syllab… …nt or Com-
mon, that is, Long or Sh…
Oratorical Number co… …ſts of Feet, but not
any certain Number.

An *Epizeuxis*, is whe… like … is re- Epizeuxis
peated in the ſame Sentenc… th…

An *Anadiploſis*, is whe… Anadiploſis
without Intermiſſion is re… ed in divers
ces, *i. e.* when it ends on… d begins anot…

An *Anaphora*, is when … like Sound is re… ed Anaphora
in the beginning of Sentences following
ther.

An *Epiſtrophe*, is when … like Sound is re- Epiſtrophe
peated in the cloſe of Sentences.

An *Epanalepſis*, is a … petition after a long Epanalepſis
Parentheſis.

Epanados, is when Two Things rehearſed to- Epanados.
gether are ſpoken of afterwards ſeverally.

Paranomaſia, is when a Word being changed Paranomaſia
in a Letter or Syllable, it is alſo changed in
Senſe and Signification, as, *O Tite Tute Tati,*
tibi tanta Tyranne tuliſti. Proleptoton.

A *Proleptoton* or *Traductio*, is a Repetition of
Words of the ſame Lineage.

Logiſmus or abſolute Reaſoning, is when a Logiſmus.
Sentence is compoſed without any talking with
another Perſon ſuppoſed.

Oephoneſis, is a Figure in Reaſoning by way Oephoneſis.
of Exclamation, by an Adverb expreſſed or
underſtood.

Recalling of one's ſelf, is when ſomething is Recalling.
called back.

Epanorthoſis, is when ſomething preceding Epanortheſis.
is called back by correcting it.

Apoſiobreſis, is when the cloſe of a Sentence
begun is ſto…'d, by keeping in a part, which yet
is underſtood.

Apoſtrophe,

rence: This conſiſteth in Queſti
in Conſenting or Diſſenting Dia

A Figure of Conſenting Dial
one's Anſwer doth admit of th
preſſed or underſtood; yet ſo
thence the Inconſequence of the
be ſhewed if need be.

Diſſenting Dialogiſm, is whe
doth impugne or croſs the Obje

Memory. See the following Page.

Memory, is a natural Faculty
which is as much as can be ſai
will in room of what might hav
thereof, here note ſome Exampl
ſuch wonderful Memory as to r
bers of Names, Words, *&c.* a
hearing, either backward or fo

Perſons of moſt extraordinary Memory.

1. *Seneca* could recite Two T
upon once hearing of them. Se
nal Note Logick in *INVENT*

The Schollars of *Archippus*, and at *Liſiades* at *Thebes* in *Greece* learnt the Precepts of *Pythagorus* by Heart, making uſe only

2. *Zuinger* in his 4th Book
lume of his great *Theater* D
among divers others makes men
Man, Born in the Iſle of *Corſica*
dily recite after once hearing, T

Behalf, the er his Arrival ſaluted
the Senate by their Names and
Sirnames.

5. Pope *Clement* VI. had ſo good a Memory, that whatſoever he read he made abſolutely his own, and never forgot it; the Cauſe of which Faculty *Petrarch* aſcribes to him from a Wound given him on his Head, by which ſome Obſtructions were diſſolved, and the Paſſages of the Brain opened, whereby a commodious Way was made for the Spirits to paſs to and fro.

6. *Carmides* a *Grecian*, could repeat all the Names of the Books diſpoſed in a large Library juſt as they ſtood in Order. But now 'tis time we return to the laſt Part of Rhetorick, and that is

Pronunciation, ought to be accompanied Pronunciation.
with ſome decent Action and Comportment of the Body. Words in your Oration ought to be choſe with Care, and thoſe uſed that are moſt Polite. Too many Conſonants, or Vowels, coming together are to be avoided; and Words of extraordinary length, as well as Monoſyllables, where Polyſyllables may be had, are to be Rejected. A Multiſyllable better anſwers a Monoſyllable precedent, than a Monſyllable a Multiſyllable. Tautology, or the often Repetition of a Word, is by no means to be uſed. Circumlocution, or many Words, are alſo to be avoided where few will ſerve, and be as Expreſſive. Omoptota's, and Words of the like Termination, being next to Tautologies, are to be ſevered. The weightieſt Words ſhould be placed in the Beginnings and Ends, becauſe they make deepeſt Impreſſions. Tranſpoſition of Words are more incident to the Learned Tongues, yet not wholly omitted

tted in the Modern. Stile ought to be
ed, according as it is prepared for the Ear,
or the Eye. An open and free Stile is ne-
ary in Speaking, a ſtricter is to be uſed in
ting; but therein uſe Caution, for the ſame
mes become not a Hiſtory and Panegyrick,
etter and an Oration, a Controverſy and a
ral Diſcourſe, a Poem and a Fable. Some
t be Heroical, ſome Submiſſive, others
rt, Grave, Jocund; and all of theſe having
r Graces and Defects. Extemporal Elo-
nce muſt be careful to uſe a long and com-
ing Stile, (ſo that he do not loſe himſelf
ein) that whilſt he ſlowly Effunds what is
ady prepared in his Memory, the Foun-
of his Wit may be repleniſhed with more,
never ſuffer himſelf to be quite exhauſted;
efore Metaphors, Similies, and Paraphra-

we ſpeak of Begging; Up when we ſpeak of Praying. The Hand beating down is uſed when a Thing is ſpoke of Anger; Clapping the Hands together when ſpeaking of Wonders; Opening one, or both Hands, when making a Thing plain, or Explaining; Arms drawn back cloſe to the Sides when Requeſting; Putting out the Forefinger when Demonſtrating; The firſt Finger turned down for Urging; Put up for Threatning; The middle Finger put out for Reproaching; The left Thumb touched by the Index of the right Hand for Reaſoning and Diſputing; The touching a Finger with the other Hand for Diſtinguiſhing and Numbring; The Hand brought towards one in ſaying any Thing of himſelf; Towards the Head when ſpeaking of the Underſtanding; To the Breaſt when of the Will, Soul or Affections; Folding the Arms when imitating Sadneſs, *&c.* Yet beware of too much Motion, rather uſing too little, than overmuch. See before in *LOGICK*, and in the following

AUTHORS,

Ariſtotle's Rhetorick, *Smith*'s Rhetorick, *Butler*'s Rhetorick, *Farnaby*'s Rhetorick, *Walker*'s Rhetorick, *Lami*'s Rhetorick. *Oul' Art de Parler*, French. *Port Royal*'s Art of Speaking, Inſtructions for Oratory. See *Cicero*'s Orations, *Livii Orationes*.

ent Voice or Inſtrument.

It doth conſiſt in Sing
Singing there are Five Thi
1. The Number of the
3. Tunes; 4. Times; and
The Number of Muſical
Times Seven, or Twenty
the loweſt Note on a Ba
on a Treble; tho' ſome Ba
reach above this Compaſs)
ture but Seven diſtinct N
Cliffs of the Scale; for t
teenth have the ſame Soun
Name) of the Firſt; the
of the Second; Tenth anc
Third, *&c.*

G. A. B. C. D. E. F. Theſe Thrice Seven Not
their Places. At the beg
and Space, is placed one
Letters of the Alphabet;
thrice repeated one above
G being put upon the firſ
each *Septenary*, being the
word *Greece*, and in the

For the Seven Notes, ſigned by the Seven Letters, are but Six ſeveral Names, invented to help the Learner in Tuning them, *Ut*, *Re*, *Mi*, *Fa*, *Sol*, *La*; and for the Seventh Note, becauſe it is but half a Tone above *La*, as the Fourth is above *Mi*, (whereas all the reſt are whole Tones) it is fitly called by the ſame Name with the Fourth, and ſo the next will be an Eighth, or *Diapaſon* to the Firſt, and conſequently placed in the ſame Letter or Cliff, and called by the ſame Name. And thus they were wont to be placed in the Scale, in which the firſt Name *Ut*, being placed on the ſame Line with the Γ, cauſed the whole Scale to be called the *Gamut*. But the Moderns have rejected *Ut* and *Re*, finding the other Four ſufficient.

Altho' the whole Ordinary Scale of Muſick doth contain Three *Septenaries* of Lines and Spaces; yet when any of the Parts which it is divided into, come to be Prick'd out by it ſelf in Songs or Leſſons, five Lines is ſufficient to contain the Compaſs of Notes thereunto belonging: And if there be any Notes that extend higher or lower, it is uſual to add a Line in that place with a Pen.

Tho' the Seven Letters ſet at the beginning of each Rule and Space, are Seven Cliffs or Cleaves, yet Four are only uſeful; the Firſt called *F Fa ut* Cliff, marked 𝄢 is proper to the Baſe, or loweſt Part, and ſet at the beginning of Songs or Leſſons; the Second, *C Sol fa ut* (proper to the Mean) marked 𝄡; the Third, *G Sol re ut* (proper to the Treble) ſigned 𝄞. Theſe are called the Three Signed Cliffs; the Fourth is *B* Cliff, proper to all

and making that Note t
a Semi-Tone, or half a N
or *B* Sharp, alters the Pr
before which it is placed
for it is uſually placed be
retain their Name, but t
Tone higher. 3. Theſe Tw
placed at the beginning c
other Cliff, but are uſi
Notes in the midſt of a
Flatting and Sharping of

Of theſe Four Notes r
Principal, or Maſter-N
found, the reſt are know
fa ſol la twice upward,
downward, and ſo you
the ſame Cliff both way

This Note *Mi* hath its
ral Places, but in but on
its proper place is in *B*
Flat, be in its Place,
but if a *B fa* be placed tl
A la mi re; if a *B* Flat
it's removed into its Fc

Tone, as from *fa* to *ſol* or *ſol* to *la*. And in the firſt guiding of the Voice, it will much help to ſound by degrees all theſe Notes, as *Sol la mi*; and at the ſecond Tuning leave out *la*, the middle Note, this will not only help you to Tune a Third, as from *ſol* to *mi*, but will alſo help in raiſing of Fourths and Fifths. The Names of Notes, in reference to their Tunes, are *Sol*, *La*, *Mi*, *Fa*; and their

Names, in Proportion of Time, are Eight, *A Large*, *Long*, *Breve*, *Semi-Breve*, *Minum*, *Crochet*, and *Semi-Quaver*; the Four firſt are of Augmentation, the Four latter of Diminution. Of the Time of Notes.

In Augmentation, the Large is Eight *Semi-breves*, the *Long*, Four; the *Breve*, Two; the *Semi-breve* is one Time, or Note.

In Diminution, the latter Four do decreaſe in this Proportion; Two *Minums* make a *Semi-Breve*, Two *Crotchets* make a *Minum*, Two *Quavers* make a *Crotchet*, and Two *Semi-Quavers* make a *Quaver*.

There belongs to Notes, deſcribed by their Number, Name, Tune, and Time, theſe Seven Things, *a Tye*, *a Repeat*, *a Pauſe*, *a Direct*, *a Cloſe*, *Single and Double Bars*, and ſeveral *Moods*.

A *Tye* is a *Semi-Circle*, whoſe two ends point to the two Notes conjoined; as when two *Minums*, or one *Minum* and a *Crochet* are tied together; as alſo, when two or more Notes are to be ſung to one Syllable, or two Notes or more to be plaid with one drawing of the Bow on the Violin. The middle and principal Note is the *Semi-Breve*: And when any Note, and its half Note, in the ſame place, are conjoined for one Syllable, the Mark of

Minums, having a Prick after it
Minums in one continued Sou
other Notes.

A *Repeat* is either of the fa
Ditty together, or of Ditty wi
and is marked thus 𝄇, and is
that there muſt be a Repetitic
again.

A *Pauſe* is a Mark of Reſt or
Time of ſome Note. A Line d
a Superior Rule, and not touchi
low, is a *Semi-Breve* Reſt; the
from an Inferior Rule, and n
Rule above, is a *Minum* Reſt;
a Crook to the Right Hand, is
and to the Left Hand a *Quav*
Line reaching from Rule to I
Reſt, or a *Pauſe* of two *Semi-*
from a Rule to a third Rule, i
of four *Semi-Breves*, and two
make a Large *Pauſe*, or a Rel
Breves.

A *Direct* in the end of a Lir
the Note ſtands in the begir

The uſual Moods are Two; the Imperfect of the more, when all goes by two except the *Minums*, which goes by three, as two *Longs* to a *Large*, two *Breves* to a *Long*, two *Semi-Breves* to a *Breve*, three *Minums* to the *Semi-Breve*, with a Prick of Perfection. This Mood is thus Signed ⊙, and is uſually called the Triple-Time.

The other uſual Mood is the Imperfect of the leſs, when all goes by two, as two *Longs* to a *Large*, two *Breves* to a *Long*, two *Semi-Breves* to a *Breve*, &c. This is called Common-Time, becauſe moſt uſed, marked 𝄵

Ariſtotle averreth Muſick to be the only Diſpoſer of the Mind to Vertue and Goodneſs, wherefore he accounteth it among thoſe Four Principal Exerciſes wherein he would have Children inſtructed; and altho' *Lycurgus* impoſed moſt ſharp Laws upon the *Lacedæmonians*, yet he ever allowed them the Exerciſe of Muſick. Some attribute it to the Vertue of Divination, (the *Sybils* Propheſying beſt after the hearing of Muſick) and ſay that thereby Men may make a Judgment of the Habits of the Body, Affections of the Mind, and Manners of Men. There is no end of this Art, every day producing new Diſcoveries therein.

The Ancients have divided Muſick into, 1. *Enharmoniack*, which by reaſon of its profound Abſtruſeneſs, and Impoſſibility of Diſcovery, they laid aſide; 2. The *Chromatick*, which by reaſon of its wanton Meaſures they utterly refuſed; 3. The *Diatonick*, which they only admitted. Others have diſtinguiſhed the Moods, as derived from ſundry Countries, for whoſe particular Genius they ſeemed at firſt

The Ancients divided Muſick into Enharmoniack.

Chromatick.

Diatonick.

greateſt Antiquity, and the *Dori*
above the other Two. To theſe,
olydian. *Lesbian*, added a Fourth, termed
dian, only fit for Tragedies, a
Compaſſion. To theſe Four Moc
who have added others, which th
ypodorian. lateral, the *Hypodorian*, *Hypolidi*
ypolidian.
opophrigian. *Hypophrygian*, to the end there mi
Correſpondent to the Number of
To all which, *Ptolomy* adds an E
rmixolydian. the *Hypermixolydian*, being the
ſhrilleſt of all. *Marcian*, accor
Tradition of *Ariſtoxenus*, numbe
cipal Moods, and Ten Collateral

The Exerciſe of Muſick is
Melancholy, which St. *Chryſoſtom*
vil's Bath; and Vocal Muſick
Breaſt and Pipes, and helpeth
Speech of thoſe that Sing.

The Invention of ſeveral M
ments, ſee in *INVENTIONS.*

Muſick of ſound Diſcords
ſweet Harmony, and it is no
when Two Baſons, Bowls, Br

Lute. A[illegible] no ordinary Charm in Muſick, [illegible]s on Brazen Veſſels, or the like, ſhou[illegible]d down a Flight of wandering Bees, a[illegible]t found of one ſingle Pipe charm Hundr[illegible]Ey'd *Argus* aſleep.

There are ſeveral [illegible]ible Examples mentioned in Ancient Hiſ[illegible]nans of famous Muſicians, ſuch as *Orpheus*, *Tirpander*, *Timotheus*, *Arion*, *Ariſtonus*, and [illegible]s; between which Two laſt was a famous Tryal of Skill, and the Victory judged to *Canonus*, by means of a Graſhopper leaping on his Harp and ſupplying the defect of a broken String. Theſe, and others, by their Muſick, are ſaid to have moved the Paſſions of Mens Minds at their Pleaſure, appeaſed the Diſconſolate and Deſperate, healed even the Sick, tempered the Amorous, and wrought moſt wonderful Effects, as may be ſeen in *Elian*, *Pliny*, and *Plutarch*; and there are thoſe, even at this Day, affirm that the ſound of Muſick, or Muſical Inſtruments, is a ſovereign Remedy for the Sting of Venom of a *Tarantula*, (a little Creature like a kind of Spider;) and that Muſical Harmony helps Madneſs, and eaſes the moſt extream Pains in the *Sciatica*, or Hip-Gout, as well as that it allayeth the Fury of Anger, and is a lengthener of Life.

The beſt Compoſers and Performers in this admirable Art, have been *Ludovico de Victoria*, after him *Orlando de Laſſo*, *Horatio de Vecchi* of *Modena*, *Giovanni Croce*, Maſter of St. *Mark*'s Chappel in *Venice*, *Luca Marenzio*, for Madrigals; *Peter Philips*, Organiſt at *Bruſſels*, an *Engliſh* Man. *Boſchetto*, *Claudio de Monte Verd*, *Guionnani Ferreti*, *Stephano Felis*, *Giulio Rinaldi*, *Philipo de Monte*, *Andrea Gabrieli*, *Cyprian de* [illegible], *Palavicino*, *Geminiano*, Seignior *Nicholao*, [illegible]. of the *Italians*.

Of

Michael East, Mr. *Bateſon*, Mr. L
Since we have had among others,
Purcell, (Inferior to none in the W
Living) how much ſoever the *Itali*
tribute to himſelf.

Now Living, is Mr. *Daniel Pur*
Blow, Mr. *Finger*, Mr. *Eccles*, M
Seignior *Baptiſt*.

King *Henry* VIII. of *England*,
only Sing his Part ſure, but Com
vice for the Church of Four, Fi
Parts, as *Eraſmus* witneſſeth.

The Duke of *Venoſa*, an *Italian*
the Landtgrave of *Heſſe*, both I
Anno 1620. gave excellent Pro
Knowlege and Love to Muſick.

Leopold VI. late Emperor of C
died in the Year, 1705. Compoſ
ſelf, and delighted ſo in Muſi
Place abounded more with Muſi
enna, his chief City, in which, a
were to the Number of Ten Tho

... in the Worl

will Repe to a Trumpet Twelve Times. *Relatione Be... Titchbourne Mil.*

AUTHORS,

Guido Aretine, *Euclid*, *Ptolemy*, *Ariſtoxenus*, *Faber Stapulenſis*, *Boetius*, *John Kepler*, *Salinas*, *Zarbins*, *Vincentius Galilæus*, in *Italian*. See *Playford*'s Introduction to Muſick, *Sympſon*'s Compendium of Muſick.

Of ARITHMETICK.

ARITHMETICK is the Art of Numbring, which Teaches us Rules for Caſting Accompts, and Inſtructs us how to Adjuſt and Caſt up Sums of Money, adding Several by Addition into One, which Subſtraction again takes away, Diviſion ſeparates into Parts, and Multiplication doubles, trebles, *&c.*

This Art is accounted the Mother of Sciences; and *Pythagoras* invented many ſtrange Myſteries in Number, averring with great Preſumption, *The World could not have been Created by GOD, had not Numbers been Inſtrumental; and that all Divine Knowledge was contained in Numbers:* And *Marcus*, *Magus*, and *Valentinus* declared they were able to diſcover an innumerable Company of Secrets in Religion by the Aſſiſtance of Numbers only.

For the Entertainment of the more curious Readers, I ſhall here inſert (before I ſpeak of the Fundamental Rules of this Science) a Brief Treatiſe of the Nine Figures, which conſtitute Numbers

Its Epithets. it, *The Nurſery of All*; b
infinite others are proceed
ture infinite others in the
Air. It is alſo by the ſam
Scope of Polymny, whereb
Intention of all Learned a
their Conferences and Wr
one prefixed End. And f
becauſe a Number muſt b
than one Unity, as alſo f
more than a Number, bec
Being, and potentially
Numbers, and in effect is
2. Its Attributes. This is added in Pra
GOD is 1, the Church 1
divers; there is 1 Creato
(for of his Rib was Woma
before the Confuſion of l
ſpel, 1 Faith, 1 Baptiſm,
1 Hope, 1 Charity, 1 Par
Life. There might be o
this Number touched upc
think we gather any thing
mancy, (an Art that by cer

Foundati[illegible] any Man find in the Impoſtures of [illegible]rithmeticians or Magicians, *&c.* who abuſing the Paſſages of Holy Scripture, (making mention of divers Numbers) have thought to have found therein a Practice of Divination, or ſome Powe[illegible]o Invocate Spirits, and Exerciſe unlawful Matters, as ſome have Taught in their Printed Works.

The Figure 2 is called by *Du Bartas*, *One's Heir Apparent*. The *Pythagoreans* called the Number 2 *Iſis* and *Diana*. It is the Father of even Numbers; but this 2 is the ruin of Unity, for to divide a Thing is to deſtroy it. *Zaratas* (who was Maſter to *Pythagoras*) called 2 the Mother of Numbers, and 1 the Father; whereof *Plutarch* yieldeth ſome Reaſon for in his Treatiſe of the Creation of the Soul. *Vide Ariſtotle*, in the Eighth Book of his Metaphyſicks. Of the Figure 2.

The Figure 3 ſome have ſuppoſed was the firſt of Numbers; for as touching 2, the *Pythagoriſts* call it not a Number, but a Confuſion of Unities; which, to ſpeak properly, are not Numbers, but Sources and Roots of them. *Plutarch* deſcribes the Praiſes of this Number 3 in his Treatiſe of *Iſis* and *Oſyris*, and in other Places, of which the Prince of Poets hath ſung, Of the Figure 3.

Numero Deus impare gaudet.

Underſtanding not all odd Numbers, as 5, 7, *&c.* but 3 properly, which is the firſt of Odd Numbers, and the beginning of Solid Bodies, divers in their Superficies. The Triangle hath been named *Minerva* by the *Pythagoriſts*, who, in their Purifications and Waſhings, uſed the Number of 3, which Secret is touched by *Virgil* in the Sixth of his *Æneids*,

Idem

And *Ovid* in the Second o

Et digitis tria thura trib

Likewiſe in his Sixth,

Protinus arbutea poſtes t
Fronde ter arbutea limin

There are divers other Te
poſe which we omit, as a
nary Number, curiouſly
1. Its Attributes. ſome Men to divers Myſt
repreſented the Trinity;
ſerved by this Number th
the World, in Sciences,
God's Apparitions other Things. We find
3 manner of ways. ritions to God's Servants
of an Angel, or a Man;
Hiſtories of *Abraham*, *Jacc*
after a ſpecial manner, a
the Underſtanding of Ma
prehend; the Third in D
Joſeph, and *Daniel*; or Vi

Underſtanding, Will, and Memory; About Us *a Dangerous Trinity, Titillation, Delectation, and Conſent*; Under Us *an Unhappy Trinity, (into which we fall by Sin) Ignorance, Weakneſs, and Impurity. Reaſon falleth into Triple Ignorance, of Good and Evil, True and Falſe, Sutable and Diſproportionable*; *Memory into three kind of Thoughts, Affectionate, Burdenſome, and Vain, or Idle*, &c.]

The Figure 4 is called the *Cubes* Baſe; a *Cube* or *Square* having a Baſe or Foot of 4 Angles; and the *Cube* among Solid Bodies is moſt Excellent and Perfect, repreſenting the Firmity, Continuance, and Virtue. See *Peter Bongus*'s Obſervations of Numbers, which he Entituleth, *Myſticæ Numerorum Significationis Liber*, who leaveth almoſt nothing untouched concerning Numbers, and above all, diſputeth at large upon the 4. Of the Figure 4.

The 4 in his Parts accompliſheth 10, being conſidered two times and one half; alſo in this ſort 1, 2, 3, 4, makes Ten. It is the Number of the Name of GOD, the *Hebrews* writing in 4 Letters the Name of GOD, and calling him Ineffable, pronouncing *Adonai*, inſtead of *Jehovah*, who is commonly called of the *Theologians*, *Nomen Tetragrammaton*, that is, a Name of 4 Letters; whereupon *Reuclin* hath amply diſcourſed in his *Cabala*, and in his Books *De Verbo Mirifico*. Other Nations have given GOD a Name of 4 Letters, 4. The Number of the Name of GOD, in almoſt all Languages.

The *Chaldeans*, ESGI AHER, that is, the Creator of the World.
The *Aſſyrians*, ADAD.
The *Egyptians*, AMUN.
The *Perſians*, SYRE.
The Ancient, *Romans* AJUS.

The

he *Greeks*, TROS.
he *Mahometans* ALLA.
he *Goths*, THOR. Their great God they ODEN and EROE.
lemens Alexandrinus ſaith, that the Anit Prieſts of *Macedona* called GOD, BEDE.
he *Etrurians* Name him ESAR.
he *Sclavonians*, BEOG.
he *Spaniards*, DIOS.
he *Italians*, IDIO.
he *Almains*, GOTT.
he *French*, DIEU.
he *Latins*, DEUS.
our Author leaves the Obſervations upon Names ADON, ADAI, JEHO, JESU, *&c.* it hath pleaſed the Spirit of GOD to ſettle n the Subſtance of Things, and not on the nber of Letters. This 4 is the Number

Magick; — — { Divine; Theurgick, Geotick, Natural.

Phyſick; — — { Rational, Sophiſtical, Dogmatical, Operative.

Logick; — — { Natural, Artificial, Doctrinal, Practical.

Muſick; — — { Enharmoniack, Chromatick, Diatonick, Mixolydian.

Painting; — — { Statuary, Plaſtick, Caſting, Engraving.

Meteors; — — { Fiery, Airy, Watry, Appearing Meteors.

Animals; — — { Volatiles, Aquatiles, Terreſtrials, Reptiles.

Plants; — — { A Tree, a Shrub, an Undershrub, an Herb.

Divination; — { Phyſiognomy, Chiromancy, Soothſaying, Dreams.

There are Four Authors commended for the

Hebrew; { *Moſes*, *David*, *Solomon*, and *Eſay* the Son of *Amos*.

Greek; { *Homer*, *Plato*, *Herodotus* and *Demoſthenes*.

Latin; { *Cicero*, *Cæſar*, *Saluſt* and *Virgil*.

Italian; { *Boccace*, *Petrarch*, *Arioſto*, and *Taſſo*.

Arabick; { *Aben-roes*, *Eldebag*, *Avicen*, and *Ibnuferid*.

Dutch; { *Penther*, *Luther*, *Peucer* and *Butric*.

Spaniſh; { *Guevarra*, *Boſcan*, *Granada* and *Garcelace*.

French; { *Clement Marrot*, *Jacques*, *Amyot*, *Ronſard* and *Pleſſis*.

Engliſh; { Sir *Tho. Moor*, Sir *Nich. Bacon*, Sir *Philip Sidney*, and *Sandys*.

4. The Numbers of the chief Authors commended of many Languages.

Years. 3. From *Abraham* ing 492 Years. 4. From prizal of *Jeruſalem* unde ing 475 Years.

Obſervations of the 4 from Scripture.

There are Four Thing 30, 15. Four Hidden, Ve ſome, Ver. 21. Four fu Four Things to be fear And there are Four Chap *Jonah*, Four in *Malachi* Old Teſtament, Four i *Coloſſians*, and Four in 2 Teſtament.

There are Four differe Natural, Deviliſh, Extra

There are Four Real ſumed to tempt *Eve*, wh Summary upon *Du Bar*

Four Reaſons why the with Inhabitants of div

There are Four River make chief mention, *vi geton*, and *Cocytes*; t *Lethe*.

Ei, telleth Wonders of the Excellency of the 5. This is alſo called a Circular Number, as likewiſe the Number or Figure 6, becauſe the Circle turns to the Point from whence it begins; ſo this Number multiplied by it ſelf doth end always in 5, as 5 times 5 makes 25, that again by 5 makes 125, *&c.* It is the Number of the *Zones*.

The Figure 6. St. *Auguſtine* in his Fourth Book of the Trinity, and in the Fourth Book upon the Text of *Geneſis*. Likewiſe *Hugo* of St. *Victor*, in his Book of the Sacraments, hold this Number of 6. to be perfect, by reaſon whereof God was pleaſed to Create all his Works in 6 Days, to ſhew that nothing was created ſuperfluous, neither was any Thing defective. This Number is properly then Surnamed *Analogique*, that is proportioned, and having relation to it ſelf, 3 is the half of 6; 2 the 3d Part; 1 the 6th Part; likewiſe 1, 2 and 3 make 6. This Number multiplied by it ſelf, ends always in 6, as 6 times 6 makes 36, and that by 6 makes 216, *&c.* It is wonderful to conceive there is ſo few, and how rare theſe perfect Numbers are, ſo of perfect Men, for betwixt 1 and 1000, 000'000, 000 Numbers, there is but 10, that is 6, 28, 486, 8128, 120816, 2096128, 33550336, 5368545 28, 8589869056, and 137438691328, with this admirable Property, that alternately they end all in 6 and 8, and the Twentieth perfect Number is 151115727451553768931328.

Of the Figure 6.

Its Epithet.

See *Potter's* Interpretation of the Number 666, or Number of the Beaſt and ſome Critick aſcribe this to be the Number of Words in the ſolemn League and Covenant. *See* Heath's *Chron. Fol.* 829.

The Figure 7. called *Critical*, that is to ſay Judging, becauſe that on the 7th Day Phyſicians give their Cenſures of Life or Death in Maladies. Sometimes becauſe of the Reſiſtance of Nature they double the Number, and expect the 14th Day, which is (as *Hypocrates*

Of the Figure 7.

ar, Septenary and Climacterical [illegible]
the 49 compoſed of 7 times 7, and the 6
poſed of 9 times 7. This Number is all
ed Male and Female, becauſe a Comp
even and odd Numbers. And it encloſ
3 and 4, and conſequently is a Number
perfect. See *Scaliger* in his 365 Exerciſe
Cardan. It is the Number of the P
and of the Sabbath, for our Lord reſted
7th and Sanctified it. *Rome* is built on
The 7 Wonders of *Dauphine*; ſee G
Geog. 200. The 7 Obſervables of *A*
See *Morden* 201.

[*There are* 7 *times* 7 *remarkable* Th
Roſtock *in* Germany, *viz.* 7 *Great I*
St. Mary's *Church*; 7 *large Streets le*
the Market-Place; 7 *Gates of the City*
the Land; 7 *Bridges over* Warna; 7
on the Town Hall; *and* 7 *great Bells*
7 *great Linden Trees in the Common Ga*

[*Seven is obſervable at* Bruſſels, *for t*
is 7 *Publick Fountains*, 7 *chief Streets*,
Houſes, 7 *Churches*, 7 *Noble Famili*
cenſed Midwives, 7 *Gates leading to*
Morden's Geog. 182.

and 8 H ds, applying alſo thereto certain Predi *Sibylla Cumea.*

[*We read of a Caliph of* Babylon *who left at his Death* 8 *Sons*, 8 *Daughters*, 8 *Millions of Gold*, 8000 *Slaves*, *and* 8 *Kingdoms added to his Dominions.*]

The Figure 9 Sirnamed *Sacred*, in favour of the 9 Muſes. This Number in Muſical Proportions is Diſſonant, amongſt the Aſtrologians it is Siniſter. In *Heſiodus Theogenie*, and in *Virgil*, ſpeaking of the 9 Creeks of *Styx* the Infernal River, they repreſent the Diſcords of Men's Complexions according as ſome interpret. See the Hieroglyphicks of *J. Pierius* in his 37th Book. This carries with it an excellent Property; for take what Number you will either in Groſs or in Part, the Nine's of the whole, or in its Parts rejected and taken ſimply, will be the ſame, as 27 it makes 3 times 9; ſo whether the Nines be rejected of 27, or of the Sum of 2 and 7, it's all one. So if the Nines were taken away of 240, it is all one if the Nines were taken away of 2, 4 and 0, for there would remain 6 in either, and ſo of others. This Figure holdeth all under it; for all Articles and Compounds, tho' never ſo great, are made of 9 Figures. The Angels in Heaven are of 9 Holy Orders, as *Seraphins*, whoſe Prince is *Mettaron*: *Cherubims* ruled by *Orphamet*: *Thraine*, whoſe Lord is *Zaphkiel*. Dominations under the ſubjection of *Zadkiel*: *Poteſtates*, whoſe Prince is *Camael*. *Vertutes* ſubject to *Raphaeh*. *Principates*, whoſe Ruler is *Hamiel*: Archangels, whoſe Lord is *Michael*, and Angels with their Prince *Gabriel*. There are 9 ſundry Spheres moveable, which you may ſee in *ASTRONOMY*. There are 9 Exterior and Interior Senſes, as Memory, Thought,

Of the Figure 9.

9 Orders of Angels. *Vide* in Metaphyſicks.

9 Spheres.

9 Senſes.

Philoſopher, lived 9 times 9 Years, &c.
the Rules and Grounds in the Science o
raldry (according to *Gerard Leigh*, who
endeavours thereto) are to the Number
but this *Guillim* doth diſcommend in hin

The Number 10 ought not to be f
tho' compoſed of but the firſt Figure an
which Figure of 1 is before treated of
here with a 0, joined thereto comes un
ther Conſiderations: Of this Number *0*
his Faſts ſpeaketh properly:

Semper ad uſque decem numero creſcente v
Principium ſpaciis ſumitur inde novis.

It conjoineth the Virtue of all the Nu
which he holdeth as it were bound in
either Simply or by Multiplication.
among the Geometricians a Line is the
in one of divers Pricks or Points, ſo
maketh the Line of Numbers, neither
One paſs farther, nor yet retire back:
Man may add 1 to 9, 2 to 8, *&c.* b
plication, and redoubling of 10 we

needs not to expreſs them, but the Number 30840979456, and 35 Cyphers at the end of it. *Clavius* and *Archimedes* maketh the Number ſomething more, becauſe they make a greater Firmament than *Tycho Brahe* doth. And by ſuppoſing that 10 Grains of Sand make but a Grain of Poppy, there is nothing but comparing that little Bowl of a Grain of Poppy with a Bowl of an Inch, that with one of a Foot, and that to one of a Mile, and ſo to the Earth, *&c.* whereby Man will find out how many are the Sands of *Lydia*, *&c.* notwithſtanding certain Philoſophers told *Gelon* King of *Sicily*, That the Grains of Sand were innumerable. But to return to the Number of 10, it is the Number God choſe for his Commandments. It is the Number of the *Sibylls*, *viz.* *Perſica*, *Lybica*, *Delphica*, *Cumea*, *Samia*, *Helleſpontiaca*, *Tiburtina*, *Albunea*, *Erythrea*, *Cumana*. It is the Number of the Perſecutions, raiſed by the *Roman* Emperors againſt the Chriſtians, *viz.* 1. Under *Nero*. 2. *Domitianus*. 3. *Trajan*. 4. *Marcus Antoninus*. 5. *Severus*. 6. *Maximinus*. 7. *Decius*. 8. *Valerianus*. 9. *Aurelianus*. 10. *Diocleſian*. And it is worth Remark, that the moſt famous City of *Rome* hath been Conquered and taken by Foreign Nations to the ſame number of Times: 1. Under *Brennus* the Brother of *Belinus*, King of *Britain*, the *Gauls* took it. 2. By *Alaric* King of the *Goths*. 3. By *Genſerick* King of the *Vandals*, a People which inhabited the Country now called *Swedeland*. 4. By *Totila* King of the *Goths*. 5. By *Odoarer* King of the *Heruli*, who drove *Auguſtus* out of *Italy*, and twice in Thirteen Years left the Country deſolate. 6. By *Theodoricus* King of the *Goths*, called by *Zeno* the Emperor to expell *Odoarer*. 7. By *Gundebald* King of the

In what manner to compute the Numbers of Things, ſeem impoſſible to be known.

10 Sybills. *Vide* in Painting.

10 General Perſecutions.

Rome 10 times taken.

So the Iſle of *Corſica* was firſt ſubject to the Tyrians, 2. Carthaginians. 3. Romans. 4. Sarazens. 5. Genoways. 6. Piſans, and 7. Genoways again.

The Number [illegible]

ſince being Multiplied by 2, 4, 5, 6, 7
will end and begin with like Numbers
Example, 11 Multiplied by 2 makes 22
makes 44, and 11 Multiplied by 8 makes

ther The Numbers 220 and 284 being u
notwithſtanding the Parts of the one Nun
always equalize the other Number: So t
quot Parts of 220 are 110, 54, 44, 22,
10, 5, 4, 2, 1, which together make 284
aliquot Parts of 284 are 142, 71, 4, 2, 1,
together makes 220; this is very diff
find in other Numbers. Likewiſe 5 Mu
by 5 makes 25; 4 in 4 makes 16; and
makes 9, but 9 and 16 is equal to 25.
3, 4, 5, be doubled, *viz.* 6, 8, 10, the S
10 is equal to the Square of 8 and 6,
times 10 makes 100, and 8 times 8 m
and 6 times 6 is 36, which 36 and 6
100, and ſo may this be Tripled, Q
ed, *&c.*

ienps re- Having thus ſpoke of the Myſteries
lumeri- ments of Figures, we will now procee
the Fin- a brief touch upon the Four Fundamen
isher *of Arithmetick*, which can never be ſo

be thought an Undervaluement to the Nature of this Work to ſpeak of

The Fundamental Rules of Arithmetick.

The Introduction to this Science is *Numeration*, which learns us the Place of each Figure with the Value, as 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0 called a Cypher, which indeed ſignifies nothing without there be One or more Figures behind it, then it increaſes the Value, as 10 is Ten, 100 is One Hundred, 1000 One Thouſand, 10000 Ten Thouſand, *&c.* which is eaſily known, if we remember that any Figure in the Firſt Place ſignifies only its own ſingle Value: In the Second Place, as many Ten's as its own ſimple Value: In the Third Place ſo many Hundreds; in the Fourth ſo many Thouſands; in the Fifth ſo many Ten Thouſands; in the Sixth ſo many Hundred Thouſands; in the Seventh ſo many Millions; in the Eighth ſo many Ten Millions; in the Ninth Place ſo many Hundred Millions, *&c.* Examples whereof let thoſe ignorant therein take thus, 146879626, which is One Hundred Forty Six Millions, Eight Hundred Seventy Nine Thouſand, Six Hundred and Twenty Six. Numeration.

ADDITION is the Firſt Fundamental Rule of *Arithmetick*, and teacheth us how to caſt ſeveral Sums into One, as the following Examples may ſhew; Addition.

A owes to me	125	: 00	: 00
B owes me	500	: 00	: 00
C owes me	375	: 10	: 00
	1000	: 10	: 00

I owe

the [illegible]
that hath any Figures, which here is u
der the Mark for Shillings, where I f
Shillings and no more, therefore I ſet that
and come to the next Column, and ſay 5
is 10, wherefore I ſet down a 0, and c
in Memory to the next Row, and ſay 1
is 8 and 2 is 10, wherefore ſetting dow
ther Cypher, I carry 1 in Memory to tl
Row, and ſay 1 and 3 is 4 and 5 is 9,
makes 10, which 10 I ſet down and fin
be juſt One Thouſand Pounds and Ten S
owing to me by *A*, *B*, and *C*. Now for
cond Example, I go to the Row of Pe
find 9, and looking upwards ſee 6, 9 a
1 Shilling and 3 Pence, wherefore ſet
and carry 1 to the Place of Shillings, 1
and 9 is 10, and 10 is 20, which b
One Pound I ſet down 00 there, and c
Memory to the Row of Pounds, ſayi
2 is 3 and 5 is 8, which I ſet down,
go the next and ſay 1 and 9 is 10,
as before I ſet down a Cypher and c
[illegible]

SUBSTRACTION, which teacheth us how to take a leſs Sum out of a greater ſo as to know what remains; as for Example, I found before that Subſtraction.

I owe 1008 : 00 : 03 and have
Owing to me 1000 : 10 : 00

0007 : 10 : 03

To know what remains for me to make good out of my ready Money and Stock, ſay, Nothing from 3 and there remains 3, which I ſet down, then going to the next, I ſay 10 Shillings from Nothing I cannot have, but 10 Shillings from 20 Shillings (which is 1 Pound I borrow in Mind from the 8 above in the Column of Pounds) there remains 10 Shillings, which ſet down and then ſay 1 which I borrowed, and 0 is but 1 ſtill, that 1 out of 8 and there remains 7, which I ſet down; and then going to the next Row and find Nothing from Nothing Twice, and then 1 from 1 and there remains Nothing, ſo that I find I muſt pay Seven Pounds Ten Shillings and Three Pence, with the One Thouſand Pounds and Ten Shillings owing to me e're I can be clear with the World.

We can prove our *Subſtraction* by *Addition*, for adding the Remainder and lower Sum together, if it be done right, we ſhall find thoſe Two agree with the upper Sum.

MULTIPLICATION is the Third Rule of Arithmetick, and ſerves inſtead of many Additions. It conſiſts of Three Parts, *Multiplicand*, *Multiplier*, and *Product*; as when I ſay, 6 times 8 is 48; 8 is the *Multiplicand*, 6 the *Multiplier*, and 48 the *Product*. The beſt Multiplication.

Order

1	2	3	4	5	6	7
2	4	6	8	10	12	14
3	6	9	12	15	18	21
4	8	12	16	20	24	28
5	10	15	20	25	30	35
6	12	18	24	30	36	42
7	14	21	28	35	42	49
8	16	24	32	40	48	56
9	18	27	36	45	54	63

[illegible] loſs in our Nur

of Pounds by 20 (the Number of Shillings in each Pound) thus,

6978
20

139560

The firſt of the 20 being a Cypher ſet down o underneath the firſt Figure, then proceed to the next Figure, and ſay, 2 times 8 is 16; ſet down 6 under the ſecond Figure and carry 1; then 2 times 7 is 14, and 1 that I carried makes 15, ſet down 5 and carry 1; then 2 times 9 is 18, and 1 I carried makes 19, ſet down 9 and carry 1; laſtly, 2 times 6 is 12, and 1 I carried is 13, which ſet down, and we find that 6978 *l.* multiplied by 20, makes 139560 Shillings. We may prove the *Multiplication* by the following Rule of

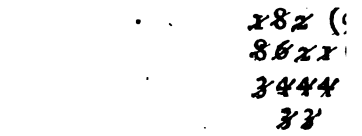
DIVISION, which Teaches us to find how many times a leſſer Number is contained in a greater, when the leſſer hath been taken out of it, as often as it can. Diviſion.

There are Four Parts or Numbers to be obſerved, 1. The Dividend. 2. The Diviſor; this muſt always be leſſer than the Dividend. 3. The Quotient, or Sum produced. 4. If any thing happen to be left after ſuch Diviſion made, which muſt always be leſs than the Diviſor, the ſame is called the Remainder.

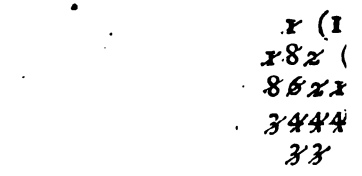
For EXAMPLE.

To divide 8621 by 34, firſt ſay, how many times 3 in 8? the Anſwer will be 2 times, which place in the *Quotient*; ſaying, 2 times 4 is 8 from 16, and there remains 8, which

ſet



and carry 1, and ſay, 2 ti
carried is 7, from 8 an
which ſet down over the
ſtroke thro' the Figures tha
then ſtill remains 1821 in t
fore I muſt now ſet dow
wards, which is done thus,



Here I enquire how often
the Anſwer will be 6 tim
not have 6 times 4 out of
but 5 times; and having
for the *Quotient*, I ſay, 5

12, from 21, and there remains 9, and 3 times 3 is 9, and 2 I carried is 11, from 12, and there remains 1; and becauſe 19 left is leſs than my *Diviſor* 34, I can divide no further, but make a Crochet before the two Figures, to denote it a *Remainder*. If your Sums be long, take care to write your Figures even in their Places, over and under each other, elſe all will be brought into Confuſion. It is ſaid before, *Multiplication* may be proved by *Diviſion*, as thus, Divide the *Product* by the *Multiplier*, and if the Work be right, the *Quotient* will be equal to the *Multiplicand*; or divide the *Product* by the *Multiplicand*, and *Quotient* ſhall be equal to the *Multiplier*; either way will do: So *Multiplication* is the ſureſt Proof of *Diviſion*, for if you multiply the *Quotient* by the *Diviſor*, and add the *Remainder*, if any be left in the *Diviſion*, if the whole *Product* were the ſame with your *Dividend*, then your Work is right, otherwiſe there is ſome Miſtake. Theſe two Rules are ſo plain, they need no *Examples*.

THE RULE OF THREE, ſo called, for that there is Three Numbers given, by which a Fourth is found in Proportion thereunto; and this is done by multiplying the Second and Third Numbers together, and dividing the *Product* by the Firſt, and the *Quotient* of the ſaid Diviſion is the Anſwer to the Queſtion. The Rule of Three.

EXAMPLE.

If 1 Pound of Sugar coſt 6 Pence, what ſhall 112 Pounds coſt?

Anſwer. 672 Pence, or 56 Shillings.

Here

112 Pound-Weight of Sugar.

Note, That in this Rule, the Firſt Numbers muſt be both of one Den and the Second muſt be brought into Value expreſſed therein.

This is ſufficient to keep the mor Parts of this Science in Memory; have arrived to greater Excellence, poſed to be perfect Maſters, need thereof.

range Pro- s in Arith- Many ſtrange Propoſitions this afford, which will ſhew the Increaſe bers by *Multiplication*; for if the might be at one Pin W ibli ach ugh out *London* were to be ſold after the ma Pin for the firſt Week, 2 the ſecon the third Week, 8 the fourth Wee fifth Week, 32 the ſixth Week, 64 t Week, 128 the eighth Week, *&c.* ling it for one whole Year, it woul to the Sum of Eighteen Thouſand, E dred and Thirty Millions of Pound at allowing a Thouſand Pins for a l which vaſt Quantity of Pins, if a Thouſand were allowed to a Qu whole would contain Ninety Eight

Pigs, with her Race, for, or unto Twelve Years Time; for ſuppoſing the Sow brings forth two Males and four Females, and each Female bring forth as many every Year, the Increaſe, at the end of Twelve Years, would be found above Three and Thirty Millions of Pigs; for which, allowing each Pig's Maintainance to coſt a Crown only, to be kept for one Year, it would exceed the *Turk*'s Revenue. The Great *Turk*'s Revenue not able to keep for one Year, the whole Race proceeds from one Sow for Twelve Years.

Alſo a Hundred Sheep, each, and its Offspring, producing one every Year, for ſixteen Years, would be found to multiply to above Six Millions, Five Hundred and Fifty Three Thouſand Sheep. Alſo, ſuppoſe one Grain of Corn ſown in the Ground brings forth fifty, (as it does often more) which fifty Grains ſown the next Year, and ſtill the Increaſe every Year, in Twelve Years Time, there would be found 244140625000000000000 which were able to load almoſt all the Creatures in the World. Increaſe of Sheep. Increaſe of Corn.

So in Ringing of Bells, there may be theſe Numbers of Changes, which is found out by multiplying every Number from the Unit ſucceſſively, in each other Product unto the Term aſſigned. Changes on Bells.

On 1 *Bell.*	1 *Change.*	*Example of Change on Six Bells.*
2	2	
3	6	123
4	24	132
5	120	213
6	720	231
7	5040	312
8	40320	321

[*Egelric*, Succeſſor to *Turketule*, Abbot of *Croyland*, about *Anno* 976. is Recorded to be the firſt who perfected a Harmonious Ring of Bells in *England*, which were at *Croyland* Ab-

ot proportionable Meaſure, n
1 lt delightful Harmony, not
in the whole Kingdom, ſaith
Church-Hiſtory of *Britain*, Lib

ſorts in Voices. And as on Bells, ſo on Muſic
may have this Number of C
Man keeping his own Note, t
ing his Place) *viz.* Three Mill
dred Twenty Eight Thouſand a

inged Inſtru- dred ſeveral Notes. The lik
ments. Inſtruments; and the *Gamut*
to the Number of 1124001075

n Twenty Notes. From this Mutability
r Letters, va- tion, it is no Marvel, that by
y of Langua- Letters there is made ſuch vari
ges, and infinite Numbers of
Language, ſeeing the diverſit
produceth that effect, and the
of Letters amongſt the Vowels,
maketh theſe Syllables; whic
Twenty Four Letters may be
dred Twenty Thouſand Four
Eight Millions of Millions,
Ninety Three Thouſand Four H

ſcore and Ten Thouſand Years. If a Man ſhould go Twenty Miles every day, it would be Three Years wanting a Fortnight, before he could go once about the Earth; and if a Bird ſhould fly round about it in two Days, the Motion would be Four Hundred and Fifty Miles an Hour. Admit it be ſuppoſed a Man could go Twenty Miles daily in aſcending towards the Heavens, he would be above Fifteen Years before he ſhould arrive at the Orb of the Moon. Alſo if a Mill-ſtone ſhould deſcend from the Place of the Sun a Thouſand Miles an Hour, which is above Fifteen Miles in a Minute, (far beyond the Proportion of Motion, as ſaith my Author) it would be above One Hundred Sixty and Three Days before it would fall down to the Earth. And the Sun in his proper Sphere (according to the *Ptolomean* Syſtem) muſt move more than Seven Thouſand Five Hundred and Seventy Miles in one Minute of Time, which is more ſwift than any Bullet, Arrow, or Thunderbolt can move. Every idle Penny a Perſon ſpends would purchaſe more than a Yard ſquare of good Land for ever; which may be thus demonſtrated, 16 Foot and an half is one Rod, and 40 ſuch Rods, that is, 660 Foot in length, and 4 ſuch Rods, that is, 66 Foot in breadth, makes one Acre of Land. It follows, that multiplying 669 by 66, that every Acre contains 43560 ſquare Feet. Now if Lands that are as good as moſt in *England*, are Let at 20 Shillings an Acre *per Ann.* and to be ſold for 20 Years Purchaſe, *viz.* 20 Pounds, or 4800 Pence. If we but divide 43560 (the Number of ſquare Feet in an Acre) by 4800, the Quotient is 9, and 360 remaining; which makes it plain, that every ſingle

Twenty Miles a Day, would take three Years to go round the Earth.

Twenty Miles a Day in Aſcending, requires above Fifteen Years to reach the Moon.

A Mill-ſtone to fall a Thouſand Miles an Hour, would take a Hundred Sixty Three Days before it came to the Earth, from the Sun.

To prove the Copernican Syſtem, ſee in Aſtronomy.

Every ſingle Penny will purchaſe a Yard ſquare of good Land for ever.

y purchaſes 9 ſquare Feet, that is 3 l
d and 3 long (and ſomewhat more)
l. Now it follows, that 2 Shillings
s a Piece of Ground of 216 ſquare F
oot long and 12 broad, which is enc
uild a pretty little Houſe upon wi
Garden. To prove that no Perſon
any Truſt or Dealings with the Wo
t to be unſkilled in this Science, wi
ins many Myſteries in Numbers.
g that a Perſon hath 20 Shillings gi
on Condition to Pay to *A.* one Third
Shillings, to *B.* one Fourth Part of
ngs, to *C.* one Fifth Part, and to *D.*
Part.

	s.
A. demands for his Share one Third Part, *viz.*	6
B. demands for his Share one	

the Equality between it and the given Magnitudes. It implieth then a diſſolving of what is ſuppoſed to be compounded, which is meant by the *Greek* word αναλυσις, or Reſolution; on which account the Name may be given to the common Operations of Arithmetick; for *Diviſion* is a Reſolution of what is ſuppoſed to be made up by *Multiplication*, &c. but ſuch Reſolutions being eaſy, are not called *Algebra*; for the Reſolution of Things, whereof the Compoſition is more intricate, is better underſtood by this Word. And this may ſuffice at preſent; but if any deſire to Read more of this Science of *Arithmetick*, let him have Recourſe to theſe

AUTHORS,

Wingate's Arithmetick, *Claircomb*'s Arithmetick, *French*; *Dela Port*'s Arithmetick, *French*; *Hodder*'s Arithmetick, *Leybourn*'s Arithmetick, *Mellis*'s Arithmetick, *Forcadell*'s Arithmetick, *Baker*'s Arithmetick, *Chamberlain*'s Merchants Accomptant, *Cocker*'s Decimal Arithmetick, *Pell*'s Introduction to Algebra, *Peter Bongus*'s *Myſtica Numerorum Significationis Liber*, *Hylle*'s Arithmetick, *John Ward*'s Guide to the Mathematicks, *Lydal*'s Arithmetick, *Kerſey*'s Algebra, *Wallis*'s Algebra.

Of GEOMETRY.

EOMETRY hath properly the Name
from Meaſuring the Earth, being firſt
d out in *Egypt*; for when *Nilus* overflow-
confounded the Limits of their Fields,
e of the more ingenious Inhabitants (Ne-
ty compelling) found out the Rules of
metry; by the Benefit whereof each Man
the fall of the Waters, had his own Por-
of Ground allotted and laid out to him;
hat from a few poor and weak Principles
ne firſt, it grew to that height, that from
h it reached to the Heavens, where it
d out their Quantities, as alſo of the Ele-
ts, and the whole World beſides. Out of

Planimetry, which is the Art of Meaſuring of Surfaces. See *SURVEYING.*

Stereometry, which is the Art of Meaſuring *Solids* or *Bodies.*

A *Line* is meaſured by a *Line* of known Magnitude.

A *Superficies*, or *Surface*, by a *Square* of a known Magnitude.

Solids are meaſured by a *Cube* of a known Bulk.

The whole Art is entirely contained in the Fifteen Books of *Euclid*'s Elements, which may be divided into Four Parts, *viz.* the Firſt Part, contained in the Firſt Six Books, Treats of *Planes*; the Second, conſiſting of the Three following Books, ſearcheth into the Properties of *Numbers*; the Third Part, conſiſting of the Tenth Book only, Treats of Commenſurable and Incommenſurable *Lines*; and the Fourth Part, comprehending the remaining Five Books, Treats of *Solids* or *Bodies.* The Fifteen Books of *Euclid*, how they may be divided.

A *Point*, is an indiviſible Sign in Magnitude. A Point, what.

Magnitude, is either a Line, or ſomething made of a Line or Lines. Magnitude, what.

A *Line* is a Magnitude, conſiſting only of Length, without either Breadth or Thickneſs, and is either conſidered ſimply of it ſelf (either Right or Oblique) or elſe comparatively with another. A Line, what.

A *Periphery*, or *Circular Line*, is that which is equally diſtant from the middle, which middle is called the *Center*; and the diſtance between that *Center* and the *Circumference*, is called the *Radius.* Periphery. Center. Radius.

Parallel Lines are ſuch as are equally diſtant in all Places, whether lying Right or Circular. Parallels.

vided in- es and

Every *Circle* is ſuppoſed to be di 360 equal Parts, called *Degrees*, *Degree* into 60 *Minutes*, and each to 60 *Seconds*, &c. Some ſuppoſe *gree* to be divided into 10 Parts, one of thoſe into 10 more, *&c.*

Circle.

A *Semi-Circle* is half the whole C contains 180 *Degrees.*

t Line.

A *Right Line*, inſcribed in a Cir

meter.

paſſeth thro' the Center, as the *Di Radius*, or is drawn beſide the Center and *Sines.*

adrant.

A *Quadrant* is the Fourth Part o *viz.* 90 *Degrees.*

igure.

A *Figure* is that which is every wl ed, whether it be with one only I *Circle*, or with more, as a *Triangle*, *Pyramis*, *Cube*, &c.

perficies.

A Figure terminated by *Lines*, *cies*; and that *Figure* which is bo

Solid.

ſeveral *Superficies*, is a *Body* or *Soli*

Triangle.

A *Triangle* is that which is co by three *Right Lines.* It is diſtin the *Sides*, or from the *Angles.* I

The *If*

A *Quadrangle* is a Plane comprehended by Four right Lines, and is either a *Parallelogram* or a *Trapezium*. A *Parallelogram* is a *Quadrangle* whoſe oppoſite Sides are Parallel or Equidiſtant, and it is either Right-Angled or Oblique. A *Trapezium* differs from the *Parallelogram*, but is a *Quadrangle*, and may be either Right Angled or Oblique. Quadrangle. Parallelogram. Trapezium.

A Right Angled *Multangled Plane*, is that which is comprehended by more than Four Lines. Multangled Plane.

A Multangled Right Lined Plane or *Polygon*, is either Ordinate and Regular, or Inordinate and Irregular. Polygon.

Ordinate and *Regular Polygons*, are ſuch as are contained by equal Sides and Angles, as a *Pentagon*, *Hexagon*, *&c.* Regular Polygons.

Inordinate or *Irregular Polygons*, are ſuch as are contained by unequal Sides and Angles. Irregular Polygons.

Note, 1. The Sides of all Plane Triangles and other Plane Figures are to be meaſured by the Scale or Line of equal Parts. 2. The Angles may be meaſured by the Lines of Sines, Tangents or Secants, as well as by the Line of Chords. And now to proceed to the

Doctrine *of* Bodies. Doctrine of Bodies.

A *Solid* or Body, is that which hath Length, Breadth and Thickneſs, whoſe Bounds and Limits are Superficies. A Solid is either Plane or Gibbous. A Solid.

A *Plane Solid*, is that which is comprehended of Plane Superficies, and is either a *Pyramid*, or *Pyramidate*. Plane Solid.

A *Pyramid*, is a ſolid Figure which is contained by Planes, ſet upon one Plane or Baſe and meeting in one Point. Pyramid.

a *Pentahedron*, *Hexahedron*, or a *Pol*

edron
m. A *Pentahedron Priſm*, is that whi prehended of Five Sides, and the B angle.

hedron
riſm. An *Hexahedron Priſm*, is that whi prehended of Six Sides, and the Ba *drangle*, and is either a *Parallelopip Trapezium*. A *Parallelopipedon* is t

pipedon. Sides or oppoſite Planes are *Parallelo Trapezium* is that ſolid whoſe oppo or Sides are neither Parallel nor Equ

dron Priſm. A *Polyhedron*, is that which is co ed of more than Five Sides, and t Multangle.

hedron. An *Octahedron* is a ſolid Figure contained by Eight Equal and Equil angles.

ohedron. A *Icoſohedron*, is a ſolid Figure, w tained by Twenty Equal and Equil angles.

decahedron. A *Dodecahedron*, is a ſolid Figur contained by Twelve *Pentagons* Equ Equiangled.

Cube. A *Cube* is in Figure like a Six Sq

A *Cone* is a Pyramidical Body whoſe Baſe is a Circle. Cone.

A *Cylinder* is a ſolid Body of equal Thickneſs, having a Circle for its Baſe. The ſolid Content of theſe Bodies may be meaſured by the following Cylinder.

PROBLEMS.

1. The Baſe and Altitude of a *Pyramid* or *Cone* given to find the ſolid Content. Problem 1.

Multiply the Altitude by a Third Part of the Baſe, or the whole Baſe by a Third Part of the Altitude, the Product ſhall be the ſolid Content required.

2. The Baſe of a *Priſm* or *Cylinder* being given, to find the ſolid Content. Problem 2.

Multiply the Baſe of the *Priſm* or *Cylinder* given by the Altitude, the Product ſhall be the ſolid Content.

3. In a Piece or Fruſtrum of a *Pyramid*, *Cone*, or other irregular Solid, both the Baſes being given to find the Content. Problem 3.

If the Aggregate of both the Baſes of the *Fruſtrum*, and of the mean Proportional between them, be drawn into the Altitude of the *Fruſtrum*, the Third Part of the Product ſhall be equal to the ſolid Content required.

4. The Axis of a *Sphere* being given to find the ſolid Content. Problem 4.

A *Sphere* (as *Archimedes* hath ſhewed) is equal to Two Thirds of a *Cylinder* circumſcribing it, now then ſuch a *Cylinder* being made, by the Area of a Circle multiplied by the Diameter, and therefore the Area of a Circle being multiplied by Two Thirds of the Diameter, the Product ſhall be the ſolid Content of a Sphere.

The Area of a Circle whoſe Diameter is 1 is 7853975, which being Multiplied by 666666, the

Two Thirds of the Diameter, the Product
98, is the ſolid Content of ſuch a Sphere;
fore,
1 to 523598, ſo is the Cube of any Axis
, to the ſolid Content required.
the noble Art of *Geometry* we have all
ner of fine Architectures, as Temples,
es, and other ſtately Edifices, our Naviga-
Ships and Gallies, alſo Bridges, Mills, Cha-
Coaches, Columns, Simple, Compound-
nd Serpentine, *&c.* Pendant Galleries,
ducts, Windows, Clocks, and all things
ſoever which have Artificial Motion, either
ir, Water (called the *Hydraulick Art*) Wind,
ws or Cords; as all manner of Muſical In-
nents, Water-works, *&c.* And moreover,
is the infinite Subtlety and immenſe Depth
is admirable Art, that it dares contend

Artificial Rarities.

Anſelmus de Boot tells us, That *Rudolphus* the Second King of *Bohemia*, had a Table of Jewels which he calls the Eighth Wonder of the World: It was wrought with ſuch Art, that the Jewels which were ſet together with inviſible Joints, preſented a moſt pleaſant Landskip, naturally repreſenting Woods, Rivers, Flowers, Clouds, Animals, *&c.* the like not to be found in the World. Table of Jewels.

Simon Stevinus made Prince *Maurice* a Flying or Sailing Chariot, which in Two Hours Time would paſs with Twenty Eight Perſons from *Scheveling* to *Putten* (Towns in *Holland*) which is about Forty Two Engliſh Miles. Sailing Chariot.

Johannes Regiomontanus made that famous Wooden Eagle (which by reaſon of Weights equally poiſed within the Body, and a certain Proportion of Air as the Spirit of Life incloſed) mounted up on high and flew to meet the Emperor *Maximilian* at *Nuremberg*, which meeting him in a Flight of half a Mile, turn'd back of its own accord and flew Home before him. He alſo made the Iron Fly that flew about a Table. Wooden Eagle. Iron Fly.

Archytas made a Wooden Dove that flew, which *Julius Cæſar Scaliger* accounteth no great piece of Art, ſaying, *That he himſelf was able to make a Ship Swim and Steer her ſelf by the ſame Means that* Archytas *made his Dove.* That is, by taking the Pith of Ruſhes covered over with Bladders, or the thin Skins wherein Gold Beaters beat their Leaves, and wrapped about with little Strings of Sinews, where when a Semicircle ſhall ſet one Wheel on going, it moving Wooden Dove.

ɒthers, the Wings ſhall ſtir and cauſe that
ion.

lbertus Magnus made a Wooden Image
ich had been the Work of Thirty Years)
uttered Words and ſounded a Trumpet.

reniborgus made an Image of Plaiſter, which
infuſing a Voice into it, as the diſtances
Breath would permit, he then ſtop'd up,
after divers Windings and Turnings came
he Head and Face of the Statue, and for-
uch as the force of the Words were ſharp,
there was a ſucceſſion of Spirits, they did
ediety move the Jaws and Tongue (made
eable for that purpoſe) and it dexterouſly
red variety of Syllables.

n the Reign of our King *Richard* II. *A. D.*
7, a Head of Earth was made at *Oxford*,
at a Time appointed ſpoke theſe Words,

tur Chriſt. The ancient *Romans* uſed to preſerve Lights in their Sepulchers many Ages, by the Oilyneſs of Gold reſolved by Art into a liquid Subſtance.

Calicrates made Piſmires of Ivory, the Legs whereof were not to be ſeen without Spectacles. Ivory Piſmires.

Mark Scaliot a Blackſmith made a Lock of Eleven Pieces (Iron, Steel and Braſs) which altogether weighed but One Grain in Gold. Lock weighed a Grain.

Myrmecides made an Ivory Chariot with Four Wheels and Four Horſes, all which were covered with One living Fly with her Wings ſpread. He alſo made a Ship with all her Tackling, which was covered by a Bee ſo as not to be ſeen. Ivory Chariot. A Ship.

Cornelius Van Drebble made an Organ ſo curious, that placing it in the open Air, where the Sun Beams could play upon it (for otherwiſe it would not do) made a rare Symphony of it ſelf. An Organ.

Clavius, by the force of a Concave in the Earth, did Impreſs, Paint, or Repreſent in the Air, the Name of *Alexander Farneſius*, (who was preſent to behold it) in radiant ſhining Letters. Letters impreſſed on the Air.

Linus, an Engliſhman, but a Jeſuite at *Liege*, carried in his Pocket a Phyal of Water, wherein a Globe floated, on which Globe was the Twenty Four Letters, and upon the Inſide of the Phyal was an *Index* or Stile that pointed out the Hour of the Day upon the Letters. A Pocket Water Dial. See hereafter.

Janellus Turrianus, a Maſter in the Mathematicks, ſent one Day ſeveral Wooden Sparrows flying in to the Emperor *Charles* V. then in his Dining-Room, and made little Armed Men Muſter themſelves, and move with Diſcipline upon a Table. Wooden Sparrows.

An

the Author, fearing Gold and Si
by that means grow leſs valuable.

In *Anno* 1610, Six Glaſſes of ſuch Glaſs as would not break, were ſen Sophy of *Perſia* to the King of *Spain*

ring Mill. Mr. *Morriſon*, an Engliſhman, the *zick* in *Pruſſia*, ſent a Mill, which only ſaw Boards, but take the Boar Saw without the help of Hands.

n En- At the Mint of *Segovia* in *Spain* gine made to move by Water, th ſtends Ingots of Gold into Bezants, it to be ſtamp'd in another, from whe livered to another that cuts it into it and Weight, and then laſtly falls i made for its Reception, all without one ſingle Hand.

s Diſhes in a made of a er-corn. *Oſwaldus Norghingerus* made Si dred Diſhes of Ivory, ſo ſmall, th included in a Cup turned out of a and ſhewed to Pope *Paul* V. See T in *Greſham* College RARITIES.

Cann &c. a Pep orn. *Johannes Baptiſta Terrarius*, a Je Twenty Five Cannons of Wood wi

Scaliger tells *Cardanus* of a Chain of ſeveral Links of Gold, which a Flea could eaſily skip and draw away with it: But as *Alexander* only gave a Fellow a Buſhel of Peas for being ſo dexterous to ſtand a good way off, and throw a Pea every Time upon a Needles Point, as conſidering his Ingenuity therein would yield no Service to Man, ſo may it be ſaid of this Chain. Gold Chain for a Flea.

Hadrian Junius ſaw at *Mechlyn* in *Brabant*, a Cherry-ſtone cut in Form of a Basket, wherein were Fifteen Pair of Dice diſtinct, each with their Spots and Number, eaſily of a good Eye to be diſcerned. Fifteen Pair of Dice in a Cherry-ſtone.

George Whitehead an Engliſh Man made a Ship all furniſh'd out, which moved on a Table, the Rowers plying the Oars, a Woman the while playing on the Lute, and a Dog Whelp crying upon Deck. A Ship.

Miron an excellent Statuary made a Mare of Braſs ſo nearly approaching the Life, that the Horſes ran upon her to Aſſail her. A Mare.

Praxiteles made an Image of *Venus* ſo rare, that a Youth fell deſperately in Love, or was rather beſotted therewith. Image of *Venus*.

Johannes à Porta in his Catoptricks mentions a Parabolical Section by which he framed an Inſtrument in that Form, it would ſpeedily fire any Thing at an infinite diſtance, even ſome Miles, a Thing himſelf calls Terrible, and indeed was much beyond what *Proclus* and *Archimædes* made for the Safety of their Country. A burning Inſtrument.

Proclus in the Reign of *Anaſtaſius Dicorus* made burning Glaſſes that burnt at a great diſtance the Ships of the *Myſians* and *Thracians* that then had block'd up *Conſtantinople*. Burning Glaſſes.

Keneth King of *Scotland* had ſlain the Son and Kinſmen of *Fenella*; ſhe to be revenged on The Murdering Image.

Murtherer, cauſed a *Statue* to be framed
admirable Art, having a Golden Apple
with Precious Stones, which whoſoever
hed was immediately ſlain by many Darts
Statue would throw or Shoot with great fierce-
. She, after the Image was ſet up, invited
eth to ſee it, and take the Apple it offered
rich preſent: He had no ſooner touched
but he was ſlain and *Fenella* fled into *Ireland*.
the *Scotch Chronicles*.

laudius Gallus made a little Wood of Trees,
h by Hydraulick Art and ſecret Conveyances
Vater (thro' the Trunks and Branches) made
ittle Birds (of which there were the repre-
ation of ſeveral Sorts) to Sing and clap
r Wings, but at the ſuddain Appearance of
Owl (by the ſame Artifice) out of a Buſh,
all became mute. It ſtood at *Tivoli* on

There is alſo another Publick Clock of admirable Workmanſhip in the Cathedral Church of *Upſal* in *Sweden*. Another.

At *Heidelberg* in *Germany* on the Town-Houſe, is a Clock, which every Time it ſtrikes, an Old Man puts off his Hat, a Cock Crows, and ſhakes his Wings, Soldiers Fight, *&c.* Alſo another.

There was a *German* Clock brought to *Leghorn* which had an infinite Number of ſtrange Motions of Companies of Shepherds Dancing, Playing on the Bagpipes, with curious Motion of the Fingers, while others Turned, ſome Danc'd, ſome Leaped, *&c.* Likewiſe another.

At *Dantzick* was ſet up an Invention for weaving Four or Five Webs at a Time without any help. The Engine moved of it ſelf Night and Day, but it was ſuppreſſed for fear of ruining the Poor Weavers, and the Inventor made away privately. A Weaving Engine.

Of no ſmall Fame was the Portable Palace made of Wood, which our King *Henry* VIII. carried into *France* to that famous Entertainment and Enterview he had with *Francis* I. It was a curious Thing, and the Model of late Years to be ſeen in the Tower of *London*. Portable Palace.

An ingenious Invention was the *Æolii Sclopæ*, or Wind Muskets, which would ſhoot Bullets with Wind and Air as forcibly as with Powder. As alſo is Mr. *Boyle*'s Pneumatick Engine or Air Pump. See more in our Treatiſe of INVENTIONS. Æolii Sclopæ.

In Queen *Elizabeth*'s Time one writ the Ten Commandments, Pater Noſter, the Creed, the Queen's Name, and the Year of our Lord in the compaſs of a Penny, and preſented ſuch a Pair of Spectacles as the Queen might ſee every Letter diſtinctly. A Manuſcript Performance.

iſtorians aſſure us, that an Iron *Statue* was
e, which after many Turnings and Wind-
preſented it ſelf to the Emperor of *Morocco*,
hom it kneeled down and delivered a Pe-
n, and then riſing again returned the ſame
it came.

dalus made a Wooden *Venus* which by the
r of Quickſilver walked, rowled her Eyes
looked as if living.

India was a *Statue* made and ſet upon a
ntain, that kneeled and adored the riſing
every Morning.

thagoras (we read) could write what he
ſed on a Glaſs, and by the Reflexion of the
Species, would make thoſe Letters appear
he Circle of the Moon ſo plain as to be
by any Perſon ſome Miles diſtant from him.

ppa affirms it poſſible, and not unknown

the Obſervation be made at a ſet Hour of the Day or Night; and when the one Party would declare any Thing unto the other; then let the Party move the Needle to thoſe Letters as would form the Words whereby to open his Intention, and the other would move alſo, and may return his Mind again by the like Means.

A Dial about an Obelisk.

Pliny aſſures us *Lib.* 26. *cap.* 8. That the Emperor *Auguſtus* having accommodated an Obeliſk One Hundred and Six Foot high at *Rome*, he made about it a Pavement; and by the Induſtry of *Manilius* the Mathematician there were enchaſed Marks of Copper upon the Pavement (the Top of the Obeliſk having a Golden Apple ſet thereon) to know the Hour, and the Courſe of the Sun, with the Increaſe and Decreaſe of Days by the ſame Shadow.

Water Dials.

Ptolemy writes, as *Cardanus* Reports, that there were Glaſſes which ſerved for Dials, and preſented the Face of the Beholders as many Times as the Number of Hours were. But this was thought to be done by the help of Water and not by Glaſſes, which did leak by little and little out of the Veſſel, diſcovering firſt One Glaſs, then Two Glaſſes, *&c.* to ſhew ſo many Faces as there were Hours, which was only by the leaking of Water.

Sun Dials within the Houſe.

The *Almains* make Dials upon the Wainſcot or Seeling of a Chamber (where the Sun can never Shine, or the Beams of the Sun cannot directly ſtrike) by placing of a little Glaſs in the place of the Style, which reflecteth the Light with the ſame Condition that the Shadow of the Stile ſheweth the Hour.

The Hearing Cave

Near to ancient *Syracuſe* in *Sicily*, are ſome Subterranean Cavities, where *Dionyſius* the Tyrant ſhut up his Slaves. Over theſe was his Palace, and being deſirous to over-hear all was

amongſt his Slaves, there was a Commu-
ion cut (between the Cavities and his Pa-
out of a firm Rock, reſembling the inte-
Frame of a Man's Ear, which makes ſuch a
us Echo, that the ſmalleſt Word that is
whiſper'd is clearly heard: It is ſtill to be

the Iſle *Salſete* in *India* are vaſt Receptа-
ut out of the main Rock one above ano-
ſome of them being equal in Bigneſs to
lage of Four Hundred Houſes, and adorn'd
ghout with ſtrange Statues of Idols repre-
ng Elephants, Tigers, Lions, Amazons, *&c.*
the Iſle *Comorein* near *Bombay*, is a City of
me Name, having divers large Heathen
ples, and many other Appartments, all cut
f the firm Rock, which ſtupendious Work
ributed by ſome to *Alexander* the Great.
e Magnificent Buildings in our Treatiſe

Of ARCHITECTURE.

ARCHITECTURE is the Art of Building well, and taken in the largeſt Senſe, comprehends all kinds of Buildings whatſoever, tho' there are more, eſpecially Three ſorts, which differing in their Application, Deſign, and Purpoſe, are yet of near Relation in ſome reſpects to each other; thus, Civil Architecture comprehends the Art and Skill of Building Dwelling-Houſes, Churches, Publick Edifices, Temples, *&c.* Naval Architecture intends the Building of Ships and Veſſels for War and Commerce; and Military Architecture, is the Art of Fortification.

Architecture is by ſome ſtiled the Queen of Arts, and having been firſt derived to us from the *Greeks*, it is not without ſome juſt Reaſon Architects retain the Terms they gave to each particular Member and Ornament belonging to the ſeveral Orders.

The Ancient *Greek* and *Roman* Architecture would doubtleſs ſtill have ſubſiſted and made good what is Recorded of them, had not the *Goths*, *Vandals*, and other barbarous Nations, by their Irruption into the Civiliz'd World, Demoliſh'd them, Introducing in their ſtead a certain Fantaſtical and Licentious manner of Building, ſince called Modern, or *Gothick* rather, being heavy, dark Piles, full of Fret and Imagry, ſuch as *Henry* VII.'s Chappel at *Weſtminſter*, which abound with Incongruities, and ſo diſſipate and break the Angles of the Sight, as it confounds it, taking off from that Noble Air and Grandure, the Bold and Graceful manner which the Ancients had Eſtabliſhed,

nore Satisfaction of which ſee the Magni-
t Buildings of the Ancients, Inſerted in
Treatiſe.

he ORDERS being no other than the
nents of Architecture are Three, deduced
the *Greeks*, and which comprehend all
Species of Building; they are the *Dorick*,
k, and *Corinthian* Orders; to theſe hath
added Two other Orders by the *Latins*,
d the *Tuſcan* and the *Compoſite*; which
laſt are by *Evelyn* and others eſteemed
igners indeed, in reſpect to the Three firſt,
h contain all that is Excellent, or Neceſ-
for Architecture, there being but Three
ners of Building, the *Solid*, the *Mean*, and
cate, all accurately expreſſed in the Three
rs firſt named, which are but ill treated
he Workmen of this Age, who are fanta-
lly deſigning Things of their own Head

the famous City of *Argos*, which was the very firſt Model of this Order: After which, were other Imitations, as that dedicated to *Jupiter* in the City *Olympia*, therefore called *Olympicus*, and another to *Apollo* in *Delos*, and many other excellent Structures. This Order repreſenting Solidity to us, is only to be employed in great Maſſy Buildings and Edifices, Ports of Cittadels, Fortreſſes of Towns, Outſides of Churches or Publick Places, and the like, where the Delicateneſs of the Ornament is neither Convenient nor Profitable, but diſcovering a certain Maſculine and Natural Beauty, which the *French* call *La grand Maniere*. Now as touching the difference of Manieres, it may happen that in the ſame Quantity of Superficies, one ſhall ſeem Great and Magnificent, and the other Poor and Trifling; for if the Diviſion of the Principal Members of the Orders, conſiſt of few Parts, and be all great, and of a bold and ample Relievo and Swelling, the Eye beholds nothing little or mean, but the Imagination is more vigorouſly touch'd with it; For Example, in a *Cornice*, if the *Gola*, or *Cymatium* of the *Corona*; the *Coping*, the *Modilians*, or *Dentili*, make a noble ſhow by their graceful Projectures, and that we ſee none of that ordinary Confuſion which is the Reſult of thoſe little Cavities, Quarter-rounds of the *Aſtragal*, &c. (which unprofitably take up Place, to the Prejudice of the Principal Members) this will appear Solemn and Auguſt, but the other Mean, by reaſon of the Multiplicity of ſmaller Ornaments. The Columns of the *Dorick* Order in the faireſt Works of Antiquity were without Baſes; as in the Theatre of *Marcellus* at *Rome*, that at *Vicenza*, and the Triumphal-Arch at *Verona*; tho' the Modern

Architects

Plain, and sometimes less. The C
not have any *Foliage*, or like Trin
if he hath *Modilions*, they ſhoul
and Plain. The *Freeze* has a re
ment, which are the *Triglyphs*, t
ment whereof was heretofore ver
ſome and Inconvenient; and all
niency conſiſts in placing the *Trig*
the middle of the Column which i
and that the *Metops* (the Spaces
Triglyphs) be perfectly Square,
be: That which renders the Exe
cult, proceeds from the Diſtributi
tercoluminations, which have their
gular and determined, which d
with thoſe of the *Triglyphs*. Se
Lib. 3. *Cap.* 2. The *Architrave*
particular Grace in certain Pende
der the *Triglyphs*, that ſeem as i
faſtened to it, as if all of a Piec
Body ought to appear Subſtantial,
ceed one full Face, left parting i
appear Feeble; but eſpecially if
in three Faces, as in the other Or
the F ilt is remarkable. Take

the reſt to the *Deſigns*, where every thing is ſo clear and punctual, that having conceived the *Module* (here made uſe of throughout) to be the *Semi-Diameter* of the *Column* divided into 30 *Minutes*, and that you do continually begin to meaſure the Projectures of every Profile from the Central Line of the Column to have (in the mean time) with the Proportion of the Members, the right Poſition and juſt Level of the *Pillar*, all the reſt admits no difficulty. For 30 Minutes making the Semi-Diameter, 60 muſt compoſe the whole Diameter, 45 Three Quarters, 40 Two Thirds, 20 One Third, 15 a Quarter, *&c.* The Meaſures of this Deſign by their Minutes, being more conciſe and eaſy than uſing the Terms of Module, Diameter, Thirds, Quarters, *&c.* which ſome uſing are forced often to mention Fractions, (as ſuppoſe one Module and 3 Minutes, half a Module, 2 Minutes and $\frac{1}{4}$ of a Minute) which hereby are avoided. Now this way premiſed throughout, let us proceed to an Example of the *Dorick* Order, of which that taken out of the Theatre of *Marcellus* agrees beſt with the Proportions of this Order taught by *Vitruvius*. The whole *Shaft* of the Column had in length 7 times its Diameter, which on the Foot of the Diviſion of the half Diameter in 30 Minutes (taking by the Rule aforeſaid the Semi-Diameter of the Column for the Module of the Orders) makes 420 Minutes, which is Fourteen Modules. The height of the *Chapter* contain'd 30 Minutes, (or One Module) as did likewiſe the *Architrave*. The *Freeze*, with its Fillet, (*i.e.* the flat thin Liſt which ſeparates it from the *Cornice*) has 1 Module and $\frac{1}{4}$, or 37 Minutes and $\frac{1}{2}$. All theſe Modules computed together, or their Minutes caſt

The Module as ſuppoſed here, Calculated for a ſtanding Rule throughout.

A Module, what.

Freeze, what.

but in regard the Profile and
always their preciſe Meaſure;
Module, the other a Module ar
out any Reſpect to the diffe
the Columns. Now the *Cornic*
ply what is deficient to arriv
Part of the Column, its partic
muſt depend on that of the Cc
Cornice of one *Profile* can't ſer
tho' of the ſame Order, unleſ
the Columns be equal, which
the general Proportion being
'tis vain to ſearch for it in th
nuter Parts. Therefore take th
of the *Entablature* of the De
a Multiplication conformable
tion it ought to bear with its
ſtill regard to the Order it rep
ample, One *Quarter*, as in thi
the *Entablature* muſt be Multi
if it be a Fifth (as in ſome E
Corinthian) it muſt be Multi
and ſo of the reſt; for the
Multiplication ought to giv
heighth of the Column. and

on the Five Orders, where you may find excellent Directions and Remarks, and Sculptures, with Lines and Figures explaining the Orders and Minuter Parts thereof at full.

The *Ionians* were the firſt Competitors with the *Dorians* in this Art, and conſidering that the Figure of a Man's Body on which the Dorick Order had been formed, was too Robuſt and Maſſie for Holy Places, choſe a Model of a more Elegant Proportion, having regard more to the Beauty than Solidity thereof, wherefore it got the Name of the *Feminine Order*, and indeed the Order of the *Caryatides*, abuſing this poor Sex, quickly ſprung up after it; the Original of which laſt Order was, the People of *Carya* in *Peloponneſus* made a League with the *Perſians* againſt their own Nation the *Greeks*; after the Defeat of the *Perſians*, the Conquerors Beſieg'd the City, burnt it, put every Man to the Sword, *&c.* and to Eternize their Reſentment, erected publick Edifices, wherein they Engraved the Images of the Captives inſtead of Columns. The *Gothick* Order in imitation of the *Caryatides* compoſed lame Figur'd *Mutills* or *Corbels* inſtead of *Cartouzes*, ſuſtained by Monkeys, *&c.* to be met with in the Corners of our Old Churches, which others diſdaining, placed ſince the Figures of Angels and Saints inſtead of the *Caryatides*, making them like Porters or Slaves to carry huge Cornices, *&c.* Of the Jonick Order.

Of this Order was the Temple of *Diana* Two Hundred Years Building, and of the *Dipterick* Figure, that is environ'd with a Twofold Range of Columns in Form of a double Portico. See hereafter amongſt the Magnificent Buildings of the Ancients.

This

This *Ionick* Order is as it were in the mid- of the Two Extreams, holding in a manner Balance betwixt the *Dorick* Solidity and tileneſs of the *Corinthian*. As the *Dorick* er hath the Grace of the *Triglyphs* on the ice; this Order hath *Dentilli* or Teeth, the *Corinthian* her *Modilions*.

The entire Order of the *Ionick* Profile, ta- from the Temple of *Fortuna Virilis* at *Rome* preſent the Church of St. *Mary* the *Egyp-*) contained from the Superficies of the *Area* he *Cornice* 11 Diameters of the whole Co- n or 22 Modules—The Column with the and Chapter had 18 Modules; the *Enta- ure* (explain'd before) had 4 Modules lack- 4 Minutes: And his Heighth making Two ths of the Column, produces a proportio- Mediocrity betwixt the *Dorick* Order

manſhip among the Parts, offends the Eyes of the truly Knowing, and is only proper for moſt Magnificent Princes and their Palaces, Triumphal Arches, *&c.*

Villalpandus will needs have the *Capitel* of this Order to be taken by the *Corinthians* from the Temple of *Solomon*, of which God himſelf had been the Architect: But *Vitruvius* gives it another Original, *viz.* That a Virgin of *Corinth* Dying, her Nurſe put into a Basket ſome Trifles which the Virgin had diverted her ſelf with whilſt Living, and ſet it on her Tomb, and leaſt the Weather ſhould injure them, covered them with a Tile. This Basket being accidentally ſet upon the Root of an *Acanthus* or great Dock, began at the Spring of the Year to ſhoot forth Leaves, the Stalks whereof creeping up the Sides of the Basket, and meeting with the Edge of the Tile (jetting out beyond the Margin or Edge of the Basket) begun at length to bend their Tops downwards, forming a pretty kind of natural *Voluta*. It then happening that the *Sculptor*, *Callimachus* (it is not known under whoſe Reign he lived, but for the Delicateneſs of his Workmanſhip in Marble, *&c.* he was by the *Athenians* Sirnamed *Catatechnos* (i. e. Induſtrious) paſſing near this Monument, caſt an Eye on the Basket, and the pretty Ornamental Foliage about it, which ſo pleaſed him, he made Columns at *Corinth* reſembling this Model, and ordained its Symmetries: Which appeared very ſplendidly great in the *Rotonda* of *Italy*, which was of this Order, and one of the rareſt Pieces of Antiquity: The whole Heighth of which Order contained 23 Modules and 2 Thirds, or 710 Minutes—The Baſe had 1 Module or 30 Minutes. The *Shaft* of the Column 15 Modules, and 2 Thirds wanting

Of the *Tuſcan* Order.

The *Tuſcan* Order is generall kind of Building, which diſ others only in the Plainneſs of and Solidity of its Parts, but i ſifting of the ſame Members Uſage. And tho' *Vitruvius Li* a particular Chapter of the build Temples after the *Tuſcan* Order is rejected by ſome as perfluous; beſides it would be invent an handſome Idea of E place upon thoſe Columns. Piece of this Order which deſe Work, and can properly recon us, is the ſimple Column it ſe Architecture at all. Nor was admitted but in Groſs and Ru the moſt Noble, and Time-endu *Trajan* was built, which yet p and Beauty extant and entire all the reſt of the ſtately Struc totally Delapidated. The Pr ſcription of which ſee in *Ev* Architecture. It contained 17

Principles; and *Vitruvius*, the Father of Architecture, is altogether ſilent, as to this Order, whoſe very Name ſeems to infer a kind of Liberty; and that if it ſometimes be permitted to take it, they may introduce into the Order, or retrench from it what they think fit, provided it be diſcreetly managed; as may be obſerved in the *Profile Compoſit* of the Caſtle of *Lyons*, at *Verona*, where the Author being to make an extraordinary large *Freeze* for the more commodious placing of many Figures, which concerned his Subjects, would ſpare from the *Cornice*, what he had uſurped from the regular Proportion of the *Freeze*, therefore he cut off the *Corona*, tho' a conſiderable Member. The Column it ſelf had Ten Diameters, and the Altitude of the *Entablature* a Fourth Part of the Column.

More Particulars of which, and the foregoing Orders, ſee at large (amongſt other Authors named hereafter) in *Evelyn*'s Parallel of Architecture, and the Abridgment of the Ten Books of Architecture of *Vitruvius*, in both which are Sculptures repreſenting each Order; and in the latter, the Perſpective View of a *Roman* Theatre, with Letters explaining each Part by its proper Name, as alſo the manner of Placing or Diſpoſing and Cementing the Stones in the Building of the Walls of Temples, Caſtles, Edifices, *&c.*

moſt Famous and Magnificent Structures *of the Ancients and Moderns.*

The Tower of *Babel* was a famous Building, t by *Nimrod*, 5146 Paces high, having an l Baſis; it had its Paſſage up round the , and had many Corn Fields, Graſs Fields, tle, and Rooms for People, Horſes, Carts, incloſed in it; yet it was not finiſhed he Confuſion of Tongues.

The *Labyrinth*, built on the Bank of *Nile*, *Pſamneticus*, King of *Egypt*; it had with- he Compaſs of one continued Wall, 1000 e ſay 3500) Houſes, and 12 Palaces co- d with Marble. This Building was moſt t under Ground, and had infinite Wind- and Turnings, yet had but one Way in-

arge enough to hold 60 Men ſtanding, and is drawn into ſo narrow a Compaſs, in reſpect of the whole, that the ableſt Archer cannot ſhoot beyond the Verge of the Foundation, or loweſt Step. None of the Stones are little enough to be born or carried by our *Engliſh* Carriages, yet were they all brought notwithſtanding (by ſome prodigious Carriages certainly) from the *Arabian* Mountains. This is one of the *Seven Wonders*, and was built by *Cheops*, an *Egyptian* King, who employed in it daily 366000 Men for 20 Years, and Proſtituted his Daughter, exacting a Stone of every Man towards the Building of it. It ſtands there ſtill, and is the Sepulchre of the *Egyptian* Kings. His Daughter built a Second, almoſt equal to the Firſt, by the like Exaction.

The *Capitol* of *Rome*, ſeated on the *Tarpeian* Rock, contending with Heaven for Height, built by *Domitian*, who expended in the Building above 12 Thouſand Talents. The outward covering was of Copper, but the *Capitol* was gilt both inſide and outſide, and the Doors overlaid with thick Plates of Gold, 'till *Honorius*'s Time. The *Capitol*.

The *Houſe* of *Nero*, which *Nero* himſelf called *Domus Aurea*; it had in its Porch a Statue of *Nero* 120 Foot high, and in the Houſe three Galleries, each Gallery a Mile long. There was within it, a ſtanding Pool, like a Sea, beſet with Buildings in Nature of a City; alſo Vineyards, Fields, Gardens, Grotto's, *&c.* and Multitudes of all Beaſts; all things covered with Gold and Precious Stones. He had his Supping-Room roofed with Ivory Planks, made moveable, for caſting down ſweet Flowers, and had Pipes for ſprinkling of Odo Ointments; the Roof of the *Nero*'s Houſe. See Golden Houſe of *Arracan* hereafter.

Supping-Room was round, which, like
ven, perpetually wheeled about.
he *Wall* of *China*, built by *Zaintzon*, was
Leagues long (with the Hills that here
there assisted the Work) the Wall was eve-
where 6 Fathom high, and built so close,
as Death if a Nail could be run in be-
n the Stones. It was 27 Years in Build-
by 70050000 Men, and had several Tur-
on the Walls, to defend themselves from
Invasions and Incursions of the *Tartars*.
he *Theatre* of *M. Scaurus* (Son-in-Law to
) then *Ædile*; the Stage had three
ths one above another, wherein were 360
umns; the middle Height of Columns all
s, the other Marble. All the Boards and
ks were gilded. The Columns beneath
38 Foot high, between which were placed

deed in the Framer, and as great a Folly in the People that ſate there.

The *Amphitheatre*, begun by *Veſpaſian*, and finiſhed by *Titus* the Son, was ſo high, the Eye of Man could hardly reach it, reared with Rivers of Treaſure poured out. It contained upon the Steps only, eaſy Seats for 87000 Perſons, ſo as the vacant Places beſides would contain about 20000 more. It ſtood where ſometime ſtood *Nero*'s Fiſh-Ponds. *Veſpaſian*'s Amphitheatre.

The *Temple of Peace*, built by *Veſpaſian*, 300 Foot long and 200 broad; of which *Joſephus* ſaith, That all the Rarities Men Travel thro' the World to ſee, are laid up there. Temple of *Peace*.

The *Aquaduct* of *Tarquinius Priſcus*, King of the *Romans*, cut thro' ſeven Hills, whereon ſtands *Rome* it ſelf, making the City hang in the Air, and paſſed under by Boats; and which is admirable, that for all the vaſt rapid Stream takes all before it, and ſhakes the Pavement under them, and notwithſtanding many Earthquakes, ſtands yet firm. *Priſcus*'s Aquaduct.

The *Aquaduct*, begun by *Caligula*, and finiſhed by *Claudius*, who commanded the two Fountains, *Curtius* and *Ceruleus* (whoſe two Heads are 40 Miles diſtant) to be brought thither, and were carried with ſuch a force, that they mounted up to the higheſt Hills in *Rome*, and ſerved all that dwelt thereon. The Work coſt 300 Millions of *Seſterces*, and was an admirable Work, if we conſider the Way theſe Waters are brought, the convenient uſe of it every where, the Number of Arches built to convey them, the Mountains pierced thro', the Vallies raiſed and made Level for the Conveyance of the Water. *Caligula* and *Claudius*, their Aquaduct.

The *Temple* of *Diana*, at *Epheſus*, counted of the *Seven Wonders* of the World; it was Years in Building, being 425 Foot long, 220 broad, and ſuſtained with 127 Pil- of Marble 70 Foot high, whereof 27 were t curiouſly graven, and all the reſt of the rble poliſhed. It was fired ſeven times, laſtly by *Heroſtratus* (the ſame Night *xander* the Great was Born) who ſet it on only to get his Name famous in Hiſtory; tho' his Name was forbid (on ſevere Pe- ies) to be mentioned, yet it is commemo- ed down, how this famous Temple was ned by his infamous Action.

The *Mauſoleum*, or Tomb of *Mauſoleus*, t to the Honour of him, by his Wife *Ar- ides*, Queen of *Caria*; it was accounted one he World's *Wonders*, being 25 Cubits high,

placed among the rareſt Works then Extant.

The huge *Coloſſus* of the Sun at *Rhodes*, made by *Charles* of *Lindum*, and accounted one of the *Seven Wonders*; it was 70 Cubits high, all of Braſs, each Finger being as big as a Man; he was 12 Years in making of it, and it ſtood ſo wide that Ships could paſs under it. It was afterwards overthrown by an Earthquake, the Braſs whereof loaded 900 Camels. *Coloſſus of Rhodes.*

The *Bridge* of *Caligula* was no ſmall piece of Art and Workmanſhip, being built upon Ships in a few Days, and was three Miles and an half to go over. This he did in Emulation of *Xerxes*, as is ſaid. *Caligula's* Bridge.

The *Ship* built by *Ptolomeus Philopater*, was 280 Cubits long, 52 in heighth from the Keel to the upper Deck; it had 400 Banks for Rowers, which were in Number 4000, and the Decks could contain 3000 Soldiers, beſides the Mariners, which were no leſs than 400. *Philopator's* Ship.

The *Ship*, or *Galleon* of King *Hiero*, called the *Syracuſia*, deſcribed in *Athenæus*, was ſure an extraordinary Thing, famous for having 10 Stables for Horſes, 8 Towers, beſides Fiſh-Ponds, Gardens, *Tricliniums*, and many fair Rooms paved with Agate and Precious Stones, and not leſs Famous for being the Work of that great Architect, *Archimedes*. The *Syracuſia.*

The *Bucentaure*, wherein the Doge of *Venice* yearly Eſpouſes the *Adriatick* Sea, is a curious Thing, and hath its Name from being able to contain 200 Perſons, which are always of the beſt Rank in *Venice*, and muſt have a reſpectful diſtance in its Seats. *Bucentaure.*

he *Via Appia*, ſo called becauſe *Appius dius* built it at his own proper Coſt du- his Conſulſhip; it is a Cawſey, in length Days Journey (beginning at *Rome*, and ning thro' *Naples* to *Brunduſium*) and ſo d that two Carts can paſs one another. made all of great black Flint-ſtones, each as big as two Men can carry; and hath inued firm this 1800 Years, being laid ſo e together, they look as if they grew to another. The frequent paſſing of Horſes, es, *&c.* over this *Appian*-Way, hath made ſmooth and ſhining, that when the Sun es thereon, it glitters two Miles off like a er Highway.

he *Turkiſh Moſque*, or *Temple* of St. *So-* built in 17 Years by the Emperor *Juſti-* ſtands in *Conſtantinople*, and for the

" ing divinely built, the Ornament of the " whole Earth moſt glorioufly ſhines like ano- " ther Sun, and Celeſtial Gyant, *&c.*" On the Pedeſtal in the midſt of the Imperial Fountain before the Church, *Juſtinian* cauſed the Statue of *Solomon* to be erected, as gazing on it, and holding his Finger in his Mouth, as owning himſelf far exceeded by this Structure of the New *Jeruſalem*. Yet however the Temple is adorned, it's but a Trifle compared in bigneſs with the Ancient Temple of *Jeruſalem*, deſtroyed by *Titus Veſpaſian*.

The *Seraglio* joyneth to the *Turkiſh Moſque* aforeſaid, and is divided from the reſt of *Conſtantinople* by a lofty Wall three Miles in Circuit; it was built by *Juſtinus*, and hath by the *Ottomans* been much enlarged, containing three Courts one within another, very pleaſing for Recreation; the Buildings indeed yielding to thoſe of *France* and *Italy* for Contrivance, but far ſurpaſſing them for Coſt and Curiouſneſs. *Turk's Seraglio.*

The Chief *Moſque* in *Fez* (of which there are 700) is called *Carnven*, being a Mile and half in Compaſs, the Roof very large and high, and is 150 Yards long, and 80 broad; it hath 30 large Gates, and above 300 Ciſterns to waſh in. *Carnven, a Moſque in Fez.*

The *Amadorach*, a College in *Fez* is a moſt curious and delicate Building, and hath three Cloyſters of admirable Beauty, ſupported with eight ſquare Pillars of divers Colours; the Roof curiouſly carved, and the Arches all of *Moſaick* Work of Gold and Azure; the Gates of Braſs finely wrought, and the Door of each private Chamber of Inlaid Work. The whole coſting the Founder 380000 Crowns. *Amadorach in Fez.*

The

Of Architecture.

The *Eſcurial*, or *Monaſtery* of St. *Lawrence* *Spain*, is ſeated about ſeven Miles North *Madrid*; it was built by King *Philip* II. is a moſt ſumptuous Building; the Front reof, towards the Weſt, is adorned with e ſtately Gates, the middlemoſt whereof s into a moſt magnificent Temple; that the Right Hand opens into divers Offices nging to the Monaſtery; that on the Left Schools and Out-houſes. At the four Cor- are four Turrets, and towards the North King's Palace. It contains in all 37 Courts Cloyſters, 11000 Windows, 800 Pillars, hath a Library containing above 18000 ks. The Revenues of it is above 30000 wns *per Annum*; and it is grown into an ge, that it is worth a Journey into *Spain* ee that alone and return.

breadth 385, excelling the length of the famous Temple of Antiquity, *viz. Solomon*'s Temple, 60 Cubits long; *Diana*'s Temple at *Ephesus*, 425 Foot long; and the great *Mosque* at *Fez*, 150 Cubits long. The Roof of the Church is Arched with great Squares, each Square adorned with a great gilt Rose, and born up by Pillars 105 Feet in Compass, and 40 distant from each other, over-crusted (or to be over-crusted) with white Marble on that side which looks towards the Body of the Church; on the other side, covered with a reddish Marble, beset with the Heads of the Primitive Martyred Popes, held up by two Angels, and with the Pidgeon of *Innocent* X. In the middle of the cross Building, is mounted the great *Cupola*, resting upon four great Pillars, from which it riseth into such a high Vault, it seems to run into the Heavens, and carrieth the Compass of 170 Paces. Under the *Cupola* is the high Altar: The inside of the *Cupola* is curiously painted with Pictures in *Mosaick* Work; and this *Cupola* is esteemed the boldest Piece of Architecture, perhaps, the World hath seen, and was built at the Cost of *Sixtus Quintus*; the four Pillars on which it resteth, are each 120 Feet in Compass, and capable of Stairs within them, and Sacristies for *Roman* Relicks above. Over the Altar (which stands upon the Tomb of St. *Peter*) are four stately Brass Serpentine Pillars, that bear up a Canopy fringed round, all of the same Metal; over the Corners of the Canopy, stand four great Angels of Brass, gilt; and in the midst is mounted high, having a fair Cross of the same Metal upon it. The *Pilastri*, or four Pillars of Brass, are each as thick as three Men, 50 Feet high from the Ground, and

weigh

h each of them 25000 Pounds-weight. Be-
this Church is an Obelisk (a great ſquare
e, in ſhape like a Pyramid) erected on a
s and Pedeſtal 26 Foot high; the Obelisk
lf being 80 Foot high, conſiſting of one
re Stone, weighing 400 Tuns, which, per-
, is the greateſt Weight in one Bulk,
d by the Art of Man.

he Round *Tower* at *Copenhagen*, is not on-
obſervable for its Structure, but for its
derful Contrivance; its manner of Aſcent
g ſuch, that a Coach may drive up to the
thereof. See Church of *Murcia*.

he *Church* in *Moſcow*, called *Jeruſalem*,
be no ordinary Pile, ſince *John Baſilides* I.
r of *Muſcovy*, put out the Eyes of the
hitect, becauſe he ſhould never build nor
rive ſuch another.

and almoſt overturn weak Cottages. Indeed, all *China* is full of Bells, hanging at every Piece of ſtately Work; but the *Turks* have no ſuch Thing as Bells amongſt them.

The Tower of *Morocco* is ſaid to be ſo high, that the Hills of *Azaſi*, 130 Miles diſtant from it, may be eaſily diſcerned; and one may ride to the Top on Horſeback.

The *Stadthouſe* of *Amſterdam* is a ſtately Edifice, founded upon ſome Thouſands of large Piles drove into the Ground. Stadthouſe at *Amſterdam*.

The *Cathedral* of *Magdeburg* in *Germany*, hath no leſs than 49 Altars in it. The *Cathedral* at *Ulm*, is not only remarkable for its Statelineſs and Magnificence, but for its great Organ, 93 Foot high, and 38 broad, (the biggeſt Pipe 13 Inches Diameter) and furniſhed with 16 Pair of Bellows to afford Wind enough for its Uſe. Cathedrals at *Magdeburgh*, and *Ulm* in *Germany*.

The *Cathedral* Church of *Murcia*, in *Spain*, is remarkable for having above 400 Chappels therein, and for its curious Steeple, ſo built that a Chariot may eaſily aſcend to the Top thereof. Cathedral of *Murcia*, in *Spain*.

The *Aquaduct* of *Segovia*, in *Spain*, built by *Trajan* the Emperor; is ſupported by 177 Arches in double Rows, reaching from one Hill to another. Aquaduct of *Segovia*.

The *Bridge* over *Saffrany*, in *China*, is 400 Cubits long, 500 high, and all but one Arch; therefore, by Travellers, called *Pons volans*. Bridge over *Saffrany*.

In the Iſland of *Salſete*, belonging to the *Peninſula* of *India* within *Ganges*, is a prodigious Rock, cut out in as prodigious a manner, having vaſt Receptacles one above another, ſome of 'em equal to a Village of 400 Houſes, and adorned with ſtrange Statues of Idols, repreſenting Elephants, Tygers, Lyons, *&c.* Structures cut out of a Rock.

The

The *Golden* Houſe of *Arracan*, in *India*, be-
d *Ganges*, being a large Hall in the King's
ace, hath its inſide entirely overlaid with
d, having alſo a huge Canopy of maſſy
d; from the Edges of which, hang above
Combalenghe, or large Wedges of Gold in
n of Sugar-loaves. There is alſo ſeven Idols
naſſy Gold, of the height of an ordinary
n, whoſe Foreheads, Breaſts, and Arms,
adorned with variety of Rubies, Sapphires,
monds, *&c.*

The *Moſque* at *Medina*, in *Arabia Felix*, is
ported by 400 Pillars, and furniſhed with
Silver Lamps, and it's called by the *Turks*,
a kiba, or moſt Holy, becauſe in it lies
Coffin of their Prophet, covered with Cloth
Gold, under a Canopy of Silver curiouſly
roidered, which the Baſſa of *Egypt* is
nd to renew yearly by the Grand Signior's

more famous the Cities, *Anchiale* and *Tarſus*, built in one Day by *Sardanapalus*, as witneſſeth the Inſcription of his Monument. *Teſte, Strabo.* (Cities built in one Day.)

The *Bridge* of *Quick Conveyance*, is worth Remark, being over the River *Sabu* in *Barbary*, which River runs between two Hills; for by the help of two large Stakes fix'd faſt in the Ground (on either ſide one) and two ſtrong Ropes extended between them; to one of which is tied a kind of big Baſket, able to contain 10 Men; the Paſſengers being entered, and pulling one of the Ropes (which runs by a Pulley) are wafted over ſooner than we could paſs a Bridge running, of the ſame length. Bridge of Quick Conveyance.

The Ten ſtately *Temples* of *Ethiopia*, all hewn out of the firm Rock, are not to be omitted, which are each proportionable in their Parts, with Gates and Windows in a regular manner, and ſaid to have been all perfected in 24 Years. For the *Ichnography* of one of theſe Temples, ſee *Comment. J. Ludolphi in Hiſt. ſuam Ethiopicam*, Lib. 2. Cap. 5. *p.* 235. Temples of *Ethiopia.*

But now to come nearer home,

The *Palace* of *Verſailles*, in *France*, ſtiled by ſome the *Golden Palace*, having extraordinary Gilding about it. The Acceſs to it is over a ſpacious Plain, that yields a Proſpect of a very magnificent Front every way; it would take up a Volume to deſcribe the exquiſite Curioſities of the Gardens and Water-Works which ſurround it for ſome Miles compaſs; there is one Walk of a very great length that paſſes under an Arch of Water, ſo contrived that the Pipes playing over you from each ſide, compoſes a regular Piece of watry Architecture; in other Places are Water-Works riſing *Verſailles in France.*

g up in many ſmall Lines, and then bend-
off like a Palm-Tree; others, like a *Her-*
with a Club, ſeeming to maul a *Hydra*,
of whoſe Head ſpout Streams of Water,
ad of Blood. In ſhort, they are ſo curi-
and ſo coſtly, that the playing of them,
only gives the Eye all manner of Enter-
ments in Art, but puts the King to the
of 2 or 300 Pounds. The Structure it
is Magnificent, Splendid, excellently Uni-
and Lofty, containing in ſome Parts of
x ſtately large and high roofed Rooms like
Halls, one above another.

he Palace of *Fontainbleau*, built by *Francis* I.
Baſe Court, eſteemed the faireſt of all *France*,
Second Court containing the faireſt and
ſt Fountain of all the World, wherefore
Houſe is called *Fountain Belle eau*. The
ce is painted by the moſt curious Artiſts of

ſon of its Stars-attempting Pinacle, had been fired many Times by Lightning, and twice conſumed by dreadful Terreſtrial Fires. Before the late Conflagration in 1666. it was a Structure taking up in length 690 Foot, therein excelling St. *Peter's* at *Rome* many Feet; was in heighth 102 Foot, and in breadth 130, ſpreading over three Acres and half of Ground. It was built as other Cathedrals, in form of a Croſs, upon mighty high Arches, in the midſt whereof was a Tower riſing 260 Foot, and on that a Spire in heighth 260 Foot more; in all from the Ground 520 Foot, above which was a Globe or Bowl of Copper gilt, of 9 Foot in compaſs, whereon ſtood the Croſs 15 Foot and an half high, and almoſt 6 Foot acroſs; above all ſtood an Eagle or Cock of of Copper, gilt, 4 Foot long, and the breadth over the Wings 3 Foot and an half. The new Structure ſtands in place of that which was deſtroyed in 1666. being in the higheſt part of all the City, and riſing like a young *Phœnix* out of the Flames, carries the Majeſty and State of the other, and all Things but the Antiquity. That part of the Croſs which hath been uſed for Prayers, and twice honoured with her Majeſty's Preſence for Solemn Thankſgivings, promiſes for the whole Cathedral ſo very much, that it may be ſaid, when finiſhed, it will excel the rareſt Structures of *Chriſtendom*, for Architecture, Painting, Workmanſhip, and Curioſity.

The Cathedral of *Salisbury*, in *Wiltſhire*, miſes our Wonder as high as doth its Steeple in the Air, founded upon four great Pillars, the Beauty whereof is admirable; and the Church deſerves as much the Uſe of the Eye to ſee it, as it did theſe Lines of the Poet to deſcribe it. *Salisbury* Cathedral.

wo many Days in one whole Year there be,
many WINDOWS *in one Church we ſee;*
many MARBLE PILLARS *there appear,*
there are Hours throughout the fleeting Year;
many GATES *as Moons one Year doth view,*
range Tale to tell, but not ſo ſtrange as true.

The Cathedral of *Wells* is a very beautiful
ecture; and the Frontiſpiece of the Weſt-
hath a more than ordinary Ornament, be-
from top to bottom all covered with cu-
s Imagery of Stone of a curious Antique
hion, and very artificially Embowed.

Ve might add many other Buildings of
land, were it not to enter upon too large
bject; as the New Palace of *Blenheim*, the
ous Structures of *York* Minſter, the Church
Vincheſter, *Weſtminſter* Abbey, and *Henry*
Seventh's Chappel therein; the Palaces of

Of SURVEYING.

GEODÆSIA, *Planimetry*, or Surveying of Land, is an Art that carries no ſmall timation among the curious; for which you uſt have (beſide other Inſtruments proper the Matter) a Ruler of about 7 or 8 Inches ng, and an Inch and an half broad, and ice two Scales, one of 12 and the other of , in an Inch, deſcribing a Line of Cords o Inches long, or ſomewhat leſs than 60 90 Degrees. The Radius of which, or 60 grees, being equal to the Semi-Diameter of ſame Circle, and after the order of theſe the other ſide, place ſeveral other Scales ich may be of 16, 20, 24, or the like in Inch, whereby you have an Inſtrument dy for ſundry Occaſions; and for this Scale its uſe, you muſt have a Pair of Braſs mpaſſes, alſo a Pair of Catem Compaſſes, ving Screws to alter the Points, as to draw occaſion requires, to the beautifying the its with Black Lead, or the like. Being pro-led with Inſtruments, and Things fit for aſuring, you muſt conſider the Meaſures l reduce that which is called Statute-Mea-e into ſuch Meaſure as is Cuſtomary and ual; for by an Act of 23 *Edward* I. an re of Land was to contain 160 Perches or les to be made out ſquare, *&c.* But by Cu-n, in divers Places of this Kingdom, this been altered by the varying of Perches in Number of Feet, as 18, 20, 24, and ſome-nes 28 Feet to the Perch; and this requires Surveyor's Diligence to reconcile the one the other, of which we ſhall give ſome In-

Acre of Land.

. Suppoſe you are to reduce 5 Acres, 2
ds, 20 Perches, meaſured Statute-Meaſure,
18 Foot the Perch; in this caſe ſeek the
Proportional Terms between 18 and 16
and an half, and to effect it, becauſe the
r carries with it a Fraction, reduce it
wo halves; and that they may be of one
omination, let the 18 Foot be likewiſe
ed, and you will find them in this man-
33, which muſt be abbreviated by 3, ſay-
how many times 3 in 33, and the An-
is 11 times 3, and doing the ſame by
it will be found to be 12 times 3, and
eupon the two Proportional Terms between
and 18 will appear to be 11 and 12;
h being done, reduce the given Quantity
Acres, 2 Roods, and 20 Perches, all into
hes, you will find them to be 900 Perches;

Meaſure Quantity, by 121, which is the leſſer Square, becauſe the leſſer is to be reduced into the greater, and you will find the Product to be 10890; which, if divided by the greater Square 144, will give for the Quotient 75 6/4, which being reduced into Acres, is 4 Acres, 2 Roods, and 36 ½ Perches. This Rule is to be taken with whatever Cuſtomary-Quantity is propoſed in their Difference and Degrees, as when the Perch is 20, 24, or 28 Foot, &c.

If in this Menſuration it is required to reduce Perches into Acres, and ſo on the contrary, obſerve that by the afore-mentioned Statute, an Acre of Ground ſhould contain 169 ſquare Perches or Poles, being every Rood four ſquare Perches; ſo that if you find any Number of Perches that muſt be done into Acres, the given Number muſt conſequently be divided by 160, and the Acres are ſhewed by the Quotient; but if there be any Remainder, and it be under 40, they are Perches, but if they are found to exceed 40, divide by 40, which you will find to be the Number of Perches contained in a Rood; ſo that the Quotient will be Roods, and the Remainder Perches.

But to reduce Acres into Perches, there is no great difficulty, conſidering it is but turning as it were backward; for in the other, to bring Perches into Acres, the Diviſion was by 160, but in this caſe, to turn Acres into Perches, it muſt be multiplied by 160, which being obſerved, we now come to the Purpoſe. If the Piece of Ground that is to be meaſured be ſquare, having conſidered that the Acre is 160 Perches, then multiply one of the ſides by the other joyning to it, and it will be

d the Sum is to be divided by 160; and
poſe your Ground be 40 Poles one way,
but 20 another, theſe multiplied make
Poles, which divided by 160, ſhews 5
es to be the Content.

n meaſuring a Triangular Piece of Ground,
obſerve to meaſure the longeſt ſide of the
ngle, as alſo the Perpendicular oppoſed to
ſaid long ſide, then multiplying the half
ne by the whole of the other, divide by

ppoſe the Side be 60, the Perpendicular
60 muſt be multiplied by 20, or 40 by
which ſo done, make 1200, which being
ded by 160, renders 7 Acres and an half
he true Content.

you are to meaſure that which is called
apezium, or double Triangle, then both the
endiculars muſt be multiplied by the Dia-

If the Piece of Ground given be Oval; ſuppoſe it to be 30 Perches one way, and 40 the other, to know the Content, multiply the length 40 by the breadth, which as aforeſaid is 30, and it will be found to make 1200, which again divided by 203 $\frac{7}{10}$ will yield 5 Acres, 3 Roods, and 23 Perches; and by this laſt Number ſo working, may be found the Number of Acres contained in a Semi-Circle, a Quarter, or Sixth Part, or any Section or Diviſion of a Circle greater or leſſer, multiplying the half Diameter. Oval Piece.

If you are to meaſure Wood-Land, which is the moſt difficult of all, fix a Mark at either corner of the Wood, that three Marks may be ſeen at once, then having a Quadrant in your Hand, lay it flat thereon and take Sight to two of the Marks on each ſide; and then upon Paper, mark the Degrees of the Angle, and meaſure to the two Marks in Sight, and place them on the ſame Paper by your Line of equal Parts, and do ſo at all other corners, 'till you have cloſed up the Plat or Wood, which then may eaſily be brought into Acres by the Line of equal Parts. *Note*, If your Quadrant be too ſmall, join two together, or do it by a Board for want of a Plain-Table, ſo your Plat upon the Paper make three Triangles, and to meaſure for one of them, meaſure for one Triangle the longeſt Doted Line by half the middle Doted Line or Perpendicular, which gives the Content; and by ſo working the other two Triangles, it is compleated. To meaſure Wood-Land.

AUTHORS,

Philips's *Purchaſers Pattern*, and in his *Mathematical Manual*; *Rathborn*, *Atwell*, *Love*, *Wing*, *Le[illegible]n*, *Holwel*, and the Ingenious Mr. *Adan[illegible]rtindale*'s *Country Survey-Book*.

Of GAUGING.

you would know the Burthen of a Ship,
r how many Tun ſhe will hold, or com-
iouſly carry; firſt inform your ſelf by
ſuring the length of the Keel, and take the
dth at the Midſhip-Beam, and the depth
he Hold; and theſe three you muſt mul-
y one by the other, then the Product there-
muſt be divided by 100, and ſo the Tuns
Burthen will be plainly demonſtrated. As,
ranting the length of a Ship's Keel to be
Foot, and at the middle Beam her breadth
and the depth in the Hold 10 Foot; then
know how many Tuns ſhe will carry, let
be multiplied by 20, and it makes 1000,

Ounces to the Pound; ſo that conſider 2000 Weight being allowed to the Tun, and every Hundred 112 Pound, the Dimenſions muſt be taken accordingly, and by this Rule take your Proportion. Another way is,

Another way.

Meaſure on the outſide of the Ship to her Light-mark, when ſhe is in the Water unladen, and there you will find the Weight or Content of the empty Veſſel; ſo that if you take your Meaſure from her Light-mark to her full Draught of Water, being laden, you'll have the true Burthen of her Tunnage. Alſo, if you are deſirous to know the Burthen of another Ship, double or treble of the ſame Mould, or a greater or leſſer Proportion, multiply the Meaſure of the length and breadth, and depth Cubically; after that is done, double or treble the Cube, and Extracting the Cube Root, your Work is done. A new Method ſee in the *Ship-Builders Aſſiſtant*.

To meaſure Caſks.

To know what Quantity of Liquid, or other Commodity is contained within any ſort of Caſk, or the like, two Things are to be conſidered; Firſt, That ſeeing Veſſels are moſtly of irregular Forms, it muſt be the care of the Gauger to conſider how they are to be reduced to regular Proportions; and, Secondly, To know the true Content of the Gallon in Cubick Inches, or Parts of a Foot; and for the firſt of theſe, carefully meaſure the Diameter of the Caſk at the Bung and Head, and by thoſe Diameters to find out the Area of their Circle; and ſo take two Thirds of the Area at the Bung, and one Third at the Head, which being added will be found to be the mean Area of the Caſk; and if you multiply that Area by the length of the Veſſel, it will ſhew how many ſolid Inches are contained in that.

Veſſel; which being divided by the Num-
of Cubick Inches in one Gallon, the Quo-
will demonſtrate what Number of Gal-
the Caſk holds. As,
we ſuppoſe that a Veſſel of Wine be 18
es Diameter at the Head, and 32 Inches
he Bung, the Length being 40 Inches, if
would be ſatisfied in the Content, conſider

ne Third of the Area at the d, is found to make in its due portion,	85, 823
nd two Thirds of the Area of Bung, make	536, 166
nd then conſider the Sum of Two to be	620, 909
Vhen multiplied by the Length	40

The Beer Barrel.

The Diameter at the Head,	9 Inches, 9 Parts.
For the Diameter at the Bung,	23 Inches, 0 Parts.
The Length,	27 Inches, 4 Parts.

The Kilderkin has for its Meaſurings,

The Kilderkin.

The Diameter at the Head,	16 Inches, 1 Part.
Its Diameter at the Bung,	18 Inches, 6 Parts.
The Length,	12 Inches, 1 Part.

The Coopers Scantlings.

And theſe are called the Coopers Scantlings, and very well agree with the received Quantity of the Ale Gallon, allowing it to be 288 Inches and a half; ſo that the Barrel, of this was reckoned to be a Pint over 36 Gallons, and a Kilderkin a Pint and a half over the half of that, though, as is ſaid, this Gallon has been agreed upon by a Committee of Exciſe to hold no more than 282 Cubick Inches.

To meaſure Irregulars, &c.

Now to meaſure Brewers Veſſels, *&c.* whether Square or Round, or of any other Form; to know their true Content, obſerve what hath been ſaid in meaſuring ſuch Bodies, dividing by 282 the Inches in one Gallon, demonſtrates the Content in Gallons; and if you divide the Gallons by 36, the Contents in Barrels are ſhewed; and thus, by knowing the true Number of Inches any Meaſure is to be taken.

AUTHORS,

Oughtred, *Ward*, *Anderſon*, *Everard*, and *Phillips*'s *Purchaſers Pattern*; alſo in his *Mathematical Manual*; likewiſe Mr. *Collings*'s *Country Gauger*, Printed for *George Sawbridge*.

Of

Of DYALLING.

NOMONICA, Horology, or Dyalling, is a curious Art; and to be an exact ologian, we muſt obſerve to have the exact vation of the Pole, for by that the deter- ation of the Center of Hours muſt be had, the Stile of the Dyal's Altitude, and the er of it. You muſt likewiſe know the Meridian Line, that ſo the Dyal's Meri- n Line may have its Place directly under Meridian of the Place where it is poſited. he that undertakes this Work, muſt be niſhed with ſuch Mathematical and Aſtro- ical Inſtruments and Materials as may him a due underſtanding of the Propor- s of Time; as a Rule, Compaſs, Aſtro-

The Perpendicular Stile is a ſtrait Line drawn from the Center of the Earth to the Plane of the Dyal: The Center then of the World, or of the Earth, in a Dyal, is the Top of the Stile, which is Perpendicular to the Plane of the Dyal.

The Pole of the Plane of the Dyal, is the Pole of a great Circle equi-diſtant from the Plane of the Dyal.

In all Aſtronomical Dyals, that part of the Stile which by its Shadow ſheweth the Hour, muſt be in the Axis or Axle-Tree of the World.

The greateſt Curioſity of this Art is to have the Hours well deſcribed or proportioned to the Sun's Motion; and to do it, there are granted to be two Right Lines, ſecting each other at Right Angles croſsways, one of them being the Meridian Line, or the Twelfth Hour Line; the other is termed the Occult Line, by which the firſt croſsways are cut to the Right Angle; and this is generally called the Line of Hours, becauſe in it the Horary Points are deſigned; but if we come to its more proper Denomination, it may be called the Equinoctial Line, ſince it repreſents the Equinoctial Circle, the chief Rule of all Hours.

To have a Right Dyal, you muſt be ſure to know its Right Center, or the Center of the Hour; to do which, be very mindful of the Elevation of the Pole, eſpecially in the Horizontal Dyal, or any of that ſort, for they will not declare the Hours in any place, but under a certain Elevation, and therefore if they are removed far, you muſt be again proportioned to that Elevation. Conjecture we then, the Pole to be elevated 49 Degrees in this Region, which is 41; place here the Foot of

your Compaſs in the Inſtrument's Center,
nding the other Foot from that to the
inoctial Line deſcribed in the Inſtrument,
rein that Part, the 41 Degrees, is cut by
Radius; ſo numbering from the Twelfth
r Line, and transfer this Extenſion of the
npaſs upon the Dyal, having yet the Com-
es Foot fixed in the Meridian and Equi-
ial Line's Concourſe, and the other fixed
he diſtant Part of the Meridian Line, de-
mining that Point to be the Hours Center;
ſo from thence, and each Point in the
inoctial Line, you are to draw all the
es which ſome term the Arches of the
rs. And further, a Line is to be drawn
ugh the Center of the Hours, a Line Pa-
el to the Equinoctial; and this is to be ac-
nted the Line of the Sixth Hour, as well in
Evening as in the Morning, as likewiſe

For the S[illegible]ion of the Plane, ſee and uſe the *Declinatory*.

To find a Meridian Line; if the Sun ſhine juſt at Noon, hold up a Plumb Line, ſo as the Shadow may fall upon your Plane, and that will be your Meridian Line. To find the Meridian Line eaſily.

Altho' Dyalling may originally be accounted a Science, yet the Generoſity of its Contemplators, in communicating their acquired Rules, its now, to many of the Ingenious, no more difficult than an Art. It being not neceſſary to underſtand Geometry, or Projection of the Sphere, which are only uſeful to thoſe who would underſtand the reaſon of this Art: For if a Man knows how to draw a Line between two Points, deſcribe a Circle with Compaſſes, erect a Perpendicular, and draw one Line Parallel to another, he may draw a Dyal for any given Plane, however ſituated in any Latitude. Dyalling now but an Art.

To frame an Equinoctial Dyal, two Lines muſt be drawn at Right Angles, whereof one is to be the Meridian, the other that of the Hour Six, Morning and Evening; and from the uſual Section of theſe Lines, draw a Circle as you think fit to be divided into 24 proportionable and equal Parts, for in this kind of Dyalling, all the Intervals muſt be equal as to the Hours. An Equinoctial Dyal.

The Polar Dyal goes Parallel to the Axis of the World, lying as it were in it, and is to be elevated above the Horizontal Plane the ſame Degrees as the World's Pole, the lowermoſt part in many Places containing not above 4 Hours, yet generally the Morning Hours are 4 and 5, towards the left ſide the Evening Hours 7 and 8, but the topmoſt ſhews the Hours from 7 in the Morning to 5 in Polar Dyal.

the To Elevation Degrees ar
taken for the Altitude of the S
the Degrees Compliment, though
tal Dyal is the contrary: Howe
ing a distinction between a Ve
North, and a Vertical to the Sou
tical to the North is, as we m
Meridian Inverted, having th
Hours downwards, falling shor
the Hours; for in some adjacent
shews but from 4 to 8 in the M
the like in the Afternoon; and t
tical hath the Center of Hours,
upwards, shewing from 6 in the
Noon.

Note, The Moon at Full tells
a Sun-Dyal exactly true.

An Admirable Dyal upon the Fin
Hand.

To by your Hand what
take a r or such like Thing

e of Life, ich is between the middle two ot[illegible] great Lines, which is ſeen Palm of the Hand; this done, the end Shadow will ſhew what a Clock it is: at the end of the firſt Finger, it is 7 in orning, or 5 in the Evening; at the end Ring-Finger, it is 8 in the Morning, in the Evening; at the end of the little er, or firſt Joint, it is 9 in the Morning, in the Afternoon; 10 and 2 at the ſecond ; 11 and 1 at the third Joint, and Mid- in the Line following, which comes from end of the Index. See Artificial Rarities

EOMETRY.

rouges, an Apprentice to a Clock- in *Pavia*, made *Alciat* a Clock ſo con- that when the Hammer ſtruck the alſo ſtruck Fire out of a Flint, which Match firſt, and afterwards a Lamp, at once gave a Man an Account of the , and furniſhed him with a Light to riſe

Art of Dyalling may be performed rically, by Projecting the Circles of ere upon the Plain it ſelf with Scale Compaſs; Arithmetically, by the Ca- or Tables of Artificial Sines and Tan- ; and Inſtrumentally, by a Plain and ble Inſtrument, accommodated with for that purpoſe, and called a Horologi- on, whereby Dyals may be Delineated all ſorts of Plain Superficies, the De- of which Inſtrument and its Uſe, at large in Mr. *Leybourne*'s Art of g. See alſo the Deſcription and Uſe of ble Horizontal Dyal in *Henry van Et-* thematical Recreations.

Of Dyalling.

Of the famous Clock at *Heidleberg* in *Ger-y*, and that at *Leghorn*, as alſo one made *Copernicus*, ſee in the Admirable Work-nſhips in the Treatiſe of *GEOMETRY*.

At *Cambray* in the *Spaniſh* Netherlands, is a -Dyal of ſingular Workmanſhip, wrought a Shepherd. The Sun-Dyal in the Privy-den, before *Whitehal* was burnt, was a cu-s Piece of Workmanſhip.

There is alſo a famous Clock at *Upſal* in *den.*

He who deſires to make a further and more fect Progreſs in this Art of Dyalling, will it beneficial thereto, to peruſe theſe

AUTHORS,

Maurolycus, *Ptolomæus*, *Kircherus* and *Mox-Artificial Clock-Maker*, *Leybourn*'s *Art of lling*, Folio and Quarto, *&c.*

p[illegible] also the Use [illegible] re[illegible] l Instruments fit [illegible] the Alt[illegible] Latitude of a ce, &c. as [illegible] the Cross [illegible]m, the Quadrant, Nocturnal, the Plain Sca[illegible] *Gunter's* Scale, [illegible] The Description of [illegible] ich, more be[illegible] Volume than a Chapter.

The Mariner's Compass is a round Plane, ose Circumference is divided into 32 equal [illegible] by straight Lines, called *Rhombs*, passing [illegible] the Center. Their Terms are as follow, signifying *North*, E. *East*, W. *West*, and S. [illegible] 1. N. 2. N. by E. 3. N. N. E. 4. N. E. [illegible] N. 5. N. E. 6. N. E. by E. 7. E. N. E. 8. E. [illegible] N. 9. East. 10. E. by S. 11. E. S. E. 12. S. by E. 13. S. E. 14. S. E. by S. 15. S. S. E. [illegible] and by E. 17. S. [illegible] S. by W. 19. S. [illegible] S. W. and by S. 21. S. W. 22. S. W. [illegible] by W. 23. W. S. W. 24. W. and by S. 25. [illegible] W. and by N. 27. W. N. W. 28. N. and by W. 29. N. W. 30. N. W. and by N. N. N. W. 32. N. and by W.

Points of the Compass.

The Height of the Pole, of so great Benefit Sailors, is to be found out thus; Observe st the height of the Sun at Noon-day, with Astrolabe, or other Instrument of that nd; then take the Declination of the Sun m the height, if the Sun declines from Equator towards the Northern Pole, or d the Declination of the Sun to the ob-ved height, if the Sun declines towards the uthern Pole; the remaining Number, or the m made up by Addition, gives the height the Equator, whose Complement to 90 De-ees (as they speak) is always the height of e Pole. Thus, if the height of the Equator, ove our Horizon, be 60 Degrees, the height the Pole is 30 Degrees, because 30 added to , make up 90; and if the Pole be elevated

10 Degrees, the height of the Equator is becauſe this Number is the Compliment of t.

NAVIGATION, as relating to private men, is commonly diſtinguiſhed into three s, 1. Plain-Sailing, 2. Mercator's Way, Circular Sailing, or Sailing by the Arch of reat Circle.

Plain Sailing, or Sailing by the Plain Chart, he plaineſt and Foundation of all the reſt; near the Equinoctial there is need of no er to be uſed, becauſe there the Degrees of ngitude, as well as of Latitude, are all al, each Degree being divided into 60 Mi-es, or Miles, tho' they are ſomewhat more n *Engliſh* Miles, each Minute or Mile con-ning about 6000 Feet. In this Art the Seaman h his helps, 1. His Compaſs to direct him

Angle is an Angle of 90 Degrees; an acute Angle is an Angle of fewer than 90; an obtuſe Angle contains more than 90 Degrees. This Science of Rectiline Trigonometry demonſtrates this Propoſition of great Uſe in Mathematicks, that the three Angles of all Rectiline Triangles are equal to two ſtraight ones. All the Angles of a Triangle may be acute, but there can be but one ſtraight or obtuſe. If one of the three Angles of a Triangle be ſtraight, the two others are equal to a ſtraight Angle. Who knows the Degrees of two Angles, knows the Degrees of the third, becauſe all three make up 180 Degrees. All the Angles of a Triangle being equal, all the Sides are likewiſe equal. And thus much for Rectiline Trigonometry.

To ſail by Mercator's Chart, is little elſe than coming to a Knowledge of the true Latitudes, Meridians, and Elevations of the Poles, Miles, Minutes, *&c.* as when it ſo falls out that one Place is under the Equinoctial, and the other nearer one of the Poles, then they find the Meridional Minutes anſwerable to that Place which hath Latitude, is to be accounted for the Meridional difference of Latitude, or that Latitude enlarged. Again, Suppoſe both Places are towards one of the Poles; thereupon ſubſtract the Meridional Minutes that are found anſwering to the leſſer Latitude, and the Remainder will be found to be the Meridional Minutes required; or if they find one Place to have North Latitude, and the other to be in South Latitude, then add the Meridional Minutes, appertaining to either Place together, and they will then find the Sum thereof to be the Meridional Minutes required, *&c.* Mercator's Sailing.

Circular Sailing, or ſailing by the Arch of Great Circle, is difficult and of little uſe, tho' thought to be the beſt by ſome, as ſhewing the neareſt Way and Diſtances between two Places; yet for that, the Seamen ſom keep to their Courſe near this Arch, are either drawn aſide from it by ſome nveniences of Winds and Streams, or elſe forced away by croſs Winds or Interpoſition of ſome Head-Lands or Iſlands, with other le intervening Hindrances, makes it diſuſed neglected.

Of Voyages and Travels, ſee Vol. I. *p.* 170. the Treatiſe of *TRAVEL*; and take here following Brief Account of the

Of VOYAGES *and* DISCOVERIES *made in* America.

Anno 1520. *Ferdinando Magellanus*, a *Spaniard*, made his Voyage and was killed.

Anno 1526. *Francis Pizzaro* ſailed from *Spain*, to the *Weſt-Indies* to diſcover the South-Sea.

Anno 1530. Mr. *Hore* ſet out for further Diſcovery of *Newfoundland*.

Anno 1567. Sir *John Hawkins* made a Voyage to *Guiana*, with whom was Sir *Francis Drake*.

Anno 1572. Sir *Francis Drake* ſet ſail for *America*; in 1577. he made his Voyage round the World; in 1585. he made another Voyage to *America*, and in 1595. his laſt, where he died in his Voyage.

Anno 1575. Captain *John Oxenham* ſailed for the *Weſt-Indies*, in a Ship of 140 Tuns, and loſt his Life.

Anno 1576. Sir *Martin Frobiſher* made his firſt Voyage; in 1577. another Voyage was made, and 1578. he made another Voyage, having 15 Sail of Ships.

Anno 1585. Mr. *John Davis* made his firſt Voyage for the North-Weſt Diſcovery; in 1586. a ſecond Voyage, and 1587. a third, making a Diſcovery to 73 Degrees.

Anno 1586. Sir *Thomas Cavendiſh* made a proſperous Circumnavigation of the Ocean, with 3 Ships and 120 Men.

Anno 1586, 89, 92, 94, and 97, the Right Honourable *George* Lord *Clifford*, Earl of *Cumberland*, made ſeveral Voyages and Adventures againſt the Spaniards in *America*, the laſt, *viz.* in 1697. being with 18 good Ships, and 1000 Men under his Command.

Anno 1595. Sir *Walter Rawleigh* ſet ſail for *Guiana*, and at his Return, enduring 14 Years Impriſonment, made afterwards another Voyage to *Guiana*, for diſcovery of a

Pliny complains, one little Seed of Hemp, in ſhort time produces a large Sail, which with Wind carries a large Ship to Sea, occaſioning Men to Periſh, as if they had not Earth enough to Periſh in.

old-Mine, but after his coming back, he as Beheaded. See Mutability of Fortune, &c. ASTROLOGY.

o 1602. Captain *George Weymouth* ſet forth ith two Fly-Boats at the Charge of the *Muſcovy* Company, to find out the North-Veſt Paſſage.

o 1605. Captain *James Hall* made his Na-igation to *Greenland*, and in 1606. a ſe-ond, in 1607. a third, and in 1612. a ourth, being then ſlain by a Savage.

o 1605. *Stephen Burrough*, Mr. *Pet*, and Mr. *Jackman*, made a Navigation to *Nova Zembla.*

o 1607. Captain *Henry Hudſon* made his oyage to 80 Degrees, and Periſhed in his eturn, by ſome of his Men forcing him, is Son, and ſix more, to go into a Shallop

Dampier's, &c. See at the end of our *GEOGRAPHY.*

AUTHORS,

Blundevill's Exerciſes, *Phillip*'s Geometrical Seaman, *Oughtred*'s Key of the Mathematicks, *Phillip*'s Mathematical Manual, *Seller*, *Everard*, *Wright*, *Newhouſe*, &c.

Of the MILITARY ART.

THIS Art teacheth Order and Diſcipline to Soldiers, for the good Management and Conduct of Armies, and to prevent Diſorder and Confuſion, makes them acquainted with all manner of Poſtures, Marches, and Countermarches, thereby to render themſelves formidable, not only to withſtand, but annoy their Enemies. It may be called the Science of Arms, or the Art of War, whereby Princes and Kingdoms may be defended from unjuſt Invaſions, Uſurpations, and Oppreſſions, attempted by Ambitious Princes, &c.

A *Grecian* Army, what Number it contained.

Of old an ordinary *Grecian* Army did contain 28672, among whom we reckon not thoſe that were upon the Elephants, who were ſometimes in greater Numbers, ſometimes in leſſer. This Army was divided into Horſe and Foot. The Foot was divided again into *Oplites* and *Pſiles*; (the *Oplites* were thoſe that wore a heavy Armour, the *Pſiles* were ſlightly Armed) the Number of which *Oplites* were always double the Number of the *Pſiles*, and the *Pſiles* double the Number of the Cavalry. All the *Oplites* of the *Phalange* were put in one Battalion, whereof the Front contained 256 Men, and

the Wing 16. Of all the *Pſiles* of the *lange*, the *Grecians* made two Battallions, having 128 Men on a Breaſt, and 8 in Flanks; all the Cavalry of the *Phalange* divided into 16 ſquar'd Turmes, or Troops, reof each did contain 64 Men. In a *Gre-* Army, made up of 4 *Phalanges*, there 4 Battallions of *Oplites*, 8 of *Pſiles*, and Troops of Horſe.

n the *Roman* Legions there were 4 different s of Men, not only as to Age, Riches, War- Science, but likewiſe on account of their ns, and way of Fighting; for of the nger and poorer ſort they made their *Ve-*, thoſe that were ſomewhat above them, n the account of their Age and Riches, *Haſtaries*, (or Halberdiers) ſuch as were er, and in the full Vigour of their Age

in conſiſted the Strength of the *Roman* Battel. By this Ordination they readily fell into each other; the *Haſtati* being preſſed, handſomly retired into the Intervals of the *Principes*, theſe into that of the *Triarij*, which making as it were a new Body, might jointly renew the Battel, wherein conſiſted the *Secret of their Succeſſes.* It was remarkably ſingular in the Battle of *Africa*, that *Scipio* fearing a Rout, from the Elephants of the Enemy, left not the *Principes* in their Alternate Diſtances, whereby the Elephants paſſing the Vacuities of the *Haſtati*, might have run upon them, but drew his Battle into right Order, and leaving the Paſſages bare, evaded the Miſchief intended by the Elephants.

There were two remarkable Forms of Battle, the *Cuneus* and *Forceps*, or the Shear and Wedge Battles, each made of half a *Rhombus*, and but differenced by Poſition. The Wedge invented to break or work into a Body, the *Forceps* to environ and defeat the Power thereof, compoſed out of ſelect Soldiery, and diſpoſed into the form of an V, wherein receiving the Wedge, it encloſed it on both ſides. After this form *Naſſes* ordered his Battel againſt the *Franks*, and by this Figure the *Almans* were encloſed and cut in pieces. Battalia in form of an V.

The *Rhombus*, or Lozenge Figure, was the form of Battel in the *Grecian* Cavalry, obſerved by the *Theſſalians*, and *Philip* King of *Macedon*, and frequently by the *Parthians*, as being moſt ready to turn every way, and beſt to be commanded, as having its Commanders at each Angle. Battalia in form of a ◇

The *Macedonian Phalanx* (a long time thought invincible) conſiſted of a long Square. For tho' they might be 16 in Rank and File, Battalia in form of a ▭

yet

when they ſhut cloſe, ſo that the ſixth
e advanced before the firſt, though the
mber might be ſquare, the Figure was ob-
g, anſwerable unto the Quincuncial Qua-
te of *Curtius*. According to the Square
cydides delivers, the *Athenians* diſpoſed
ir Battle againſt the *Lacedæmonians* Brick-
e, and by the ſame word the Learned *Guel-*
expoundeth the Quadrate of *Virgil* after
form of a Brick or Tile.

The RAM (an Engine to batter down
Walls of Cities) anciently uſed in the
rs, was made of a great Tree, or Beam,
unto a Maſt of a Ship, having a piece of
n in manner of a *Ram*'s Head, faſtened at
end thereof; wherewith they did demo-
and batter down the Wall. It was hung
n a Beam which lay croſs over a couple of

In this Army is drawn up in Battle n three L and the *French* divide ſome- imes every Line into ſeveral little Bodies; he *Turks* give ſometimes to their Army the Figure of a Creſcent, which form is alſo often in a uſed Fight at Sea.

The Armies now are not always divided into Parts made up of the ſame Numbers; for ſome Regiments have 10 Companies, others 15, others 20, *&c.* Likewiſe the Companies have not always the ſame Number of Men, ſome being 100, others 120, others 150, *&c.*

A Battallion commonly conſiſts of 500 Foot.

A Squadron commonly is a ſmall Party of Horſe of about 150.

The Camp, eſpecially if the Enemy be near, ought to be in ſome Place where there is a great Plenty of Water and Proviſions; and if the Army is to make any long ſtay, tis requiſite to obſerve whether the Air be good. Take care not to encamp near a Hill, unleſs you ſecure it for your ſelves) which being taken by the Enemy, may incommode the Camp.

Tho' Courage be altogether neceſſary to a Soldier, as I ſhall ſpeak ſufficiently of preſently, yet 'tis good Policy in War, to let an Enemy have opportunity to retire; the want of which made *Charles* VI. of *France* loſe his Army by intercepting our *Henry* V. *John* of *France*, by ſurrounding our Black Prince, with his Army, met with an Overthrow. *Themiſtocles* would not let *Xerxes*'s Bridge acroſs the *Helespont* be broke, leſt the *Perſians* ſhould be compelled to fight, and happen to recover all they had loſt. Our *William* the Conqueror burnt his own Navy, to make the Soldiers re-

ly

See the Citizens of *London*'s Anſwer to King *Edward* II. in our Chronicy. p. 224.

pon their Courage. *Tariff*, the Leade
Moors into *Spain*, did the like. The
enclosing the *Grecian* Navy, were by
eks defeated. So *Themistocles* ad
xes to get between the *Spartans* and
ntry, which he did, and compelling
ight, met his own Overthrow. This
gnedly done by *Themistocles*, who fea
Spartans would leave their Allies,
enians, at the sight of so prodigiou
y as *Xerxes* brought, advised him to
them to fight, which he thought w
e the Success it met with.
f several Inventions in the Art of War
he Treatise of *INVENTIONS*.

EXERCISE *of the* SOLDIERY.

Teaching the Posture Arms to

1. Rank, of *Leaders.*
2. Rank, of *Bringers-Up.*
3. Rank, of *Middle-Men* to the Front, is the ſixth Rank from the Front.
4. Rank, of *Middle-Men* to the Rear, is the fifth Rank to the Front.
5. Rank, is the ſecond to the Front.
6. Rank, is the ſecond to the Rear.
7. Rank, is the third to the Rear.
8. Rank, is the third to the Front.
9. Rank, is the fourth to the Front.
10. Rank, is the fourth to the Rear.

General WORDS *of* COMMAND.

Stand to your Arms.

Silence.] Which be ſure to have performed, or there will be Confuſion. General Words of Command.

Stand right after your Leaders, or *File Even.*

Stand Even with your Side-Men, or *Rank Even.*

In your Order.] That is, Files three Feet aſunder, and the Ranks ſix Feet.

In your Open Order.] That is, Files ſix Feet aſunder, and Ranks twelve Feet.

In your Cloſe Order.] That is, Files a Foot and a half aſunder, and Ranks three Feet.

Cloſer than this the Muſqueteers muſt never be, but the Pikes, when they are to give or receive a Shock are to be commanded. But Pikes are now diſuſed.

Pikes in your Cloſe Order, or *Pikes Cloſe.*] Then the Ranks muſt Cloſe unto the Rapier or Swords Point of their *Leaders.* If the Words *Files* and *Ranks* be not expreſſed, then muſt the Soldier underſtand both are meant; but ſometimes the Command is,

Files in your Open Order, and Ranks in Order.] Which is ſix Foot ſquare.

Files

tain muſt for his Place be in
Front of the Pikes; the Lieu
Rear; the Enſign in the firſt I
geants in the Flanks; the Drum
ners. The Drum muſt be u
March in three Meaſures, *viz.*
Mean, and the Swift, ſo as the
proportion their Pace accordin
deed depends on the Captain's V

The *Leaders* muſt turn and
their Files 'till they come to th
their *Bringers-Up* ſtood, the re
up to that Ground where their I
ſtood, there turning, follow unt
Up be in the *Leaders* places.

To the Right Hand.
To the Left Hand as you were
To the Left Hand.
To the Right Hand as you wer
To the Left Hand about.
To the Right Hand as you wer

Middle-Men to the Right Hand double the Front or *Ranks.*

Middle-Men to the Left Hand as you were.

Middle-Men to the Left Hand double the Front or *Ranks.*

Middle-Men to the Right Hand as you were.

Middle-Men by Diviſion double the Front.

Middle-Men as you were.

Wheel to the Right Hand.

In Wheeling, the Right Hand corner Man muſt ſtand firm, the Left corner Man muſt move forward, and every *Leader* after him ſucceſſively, keeping the ſame diſtance exactly which they had before they moved. The ſame way of proceeding (the Hand changed) ſerves for

Wheel to the Left Hand.

Wheel about to the whole Body.

To Increaſe the Ranks, the ſecond Rank muſt come up into the firſt, and ſo onward.

POSTURES *for the* PIKE.

Poſtures for the Pike. Pikes are now diſuſed.

1. *Order your Pikes.*
2. *Advance your Pikes.*
3. *Shoulder your Pikes.*
4. *Charge your Pikes.*
5. *Order your Pikes.*
6. *Traile your Pikes.*
7. *Cheek your Pikes.*
8. *Charge your Pikes.*
9. *Shoulder your Pikes.*
10. *To the Right Hand Charge.*
11. *Shoulder your Pikes.*
12. *To the Left Hand Charge.*
13. *Shoulder your Pikes.*

musket. dered.

Rests and Match-Locks out of use.

2. *Prepare your Reſt.*
3. *Slip your Musket.*
4. *Poiſe your Musket.*
5. *Joyn your Reſt and Mu*
6. *Take out your Match.*
7. *Blow your Match.*
8. *Cock your Match.*
9. *Try your Match.*
10. *Guard your Pan.*
11. *Blow your Match.*
12. *Open your Pan.*
13. *Preſent.*
14. *Give Fire.*
15. *Recover your Musket.*
16. *Uncock your Match.*
17. *Return your Match.*
18. *Clear your Pan.*
19. *Prime your Pan.*
20. *Shut your Pan.*
21. *Blow your Pan.*
22. *Caſt off your looſe Corn*

Edward the Black Prince, with 8000, vanquiſhed 40000 *French* at the Battle of *Poictiers.*

Our *Henry* V. with 15000, beat 52000 *French.*

Alexander the Great with Handfuls, conquered the World.

Cynogirus having his Hands cut off, bit with his Teeth the Arms and Ships of his Enemies. *Sergius* fought four Times with his left Hand (which *Pliny* ſets down as a Prodigy.) *Sicinnius* had been in an 120 Combats, bearing away 36 Spoils of his Enemies, and 45 Wounds of his own. *Scanderbeg*, in ſeven Battles, ſlew 2000 Men with his own Hand. The *Turks* took him out of his Tomb, and wore his Bones for Jewels, thinking they would impower the Bearer with Conqueſt over his Enemy. *Boadicea*, Queen of *Britain*, defeated the *Roman* Conſul. *Margaret*, Wife to our King *Henry* VI. beat that Army which had conquered her Huſband's Forces.

Venice held for ſeven Years a War againſt all the Princes of *Europe.*

Cleomenes was ſo inveterate to Cowardiſe, that the Spoils he won from Cowards, he would neither Sacrifice to the Gods nor let the *Lacedæmonian* Youth behold them.

Famous Sieges.

The City of *Bizantium*, afterwards called *Conſtantinople*, once held out a Siege of three Years againſt almoſt all the Forces of the World: They were in ſuch Streights for Food, that Men meeting in the Streets, would, with joynt Conſent, fight, the Victor to eat the Vanquiſhed; and for want of Artillery, they flung Statues at their Enemies, *&c.*

The City of *Troy* held out a Siege of 10 Years.

The City of *Riga*, *Anno* 1656. repulſed 100000 *Muſcovites.*

Oſtend in *Flanders*, once held out a Siege above three Years.

Numantia, in *Spain*, with 4000 Soldiers, hſtood 40000 *Romans* for 14 Years.

The People of *Gaunt* rebelling againſt the unt of *Flanders*, their Sovereign, and being cked up on all ſides, iſſued deſperately out the Town with only 5000, and overthrew Count with 40000 Men, purſuing him to *uges*, whence he eſcaped in the Night, and noſt all the Towns in *Flanders* yielded to m.

Toledo, in *Spain*, held out a five Years Siege, m *Anno* 1080.

The little Cittadel of *Nice* repulſed a Navy 200 Sail, *Anno* 1543.

Scudaria, a little Town in *Dalmatia*, held a Years Siege againſt *Mahomet* II.

nd a Numb of Valiant young Men, ſailed owards the Cittadel, receiving the Shot of he *French* on all ſides, and maugre all Oppo- tion, cut the Cables, and reſcued the Ship, o the Wonder of all Spectators, and the great oy of his Country-men; which Action has rocur'd him the Name of the *Immortal Deli- erer of his Country.* The firſt begining of Triumphs. See *Games*, Vol. I. p. 102.

And here it may not be improper, in rela- on to the Subject, and ſatisfaction of the eader, to add a Collection of ſome other of he moſt famous and remarkable Battles that ave been fought throughout the World.

Other FAMOUS BATTLES.

Famous Battles.

A. M. 373. *Brennus*, with his *Gauls*, overthrew 40000 *Romans* near the River *Allia*, and marching to *Rome*, was after vanquiſhed by *Camillus*.

A. V. C. 640. A Battle was fought between *Marius* and *Jugurtha*, King of *Numidia*; which laſt loſt the Victory. Of the Battle between King *Acron* and *Romulus*. See Vol I. p. 102.

Between *Marius* and the *Cimbri*, whom he ſet upon marching (divided into three Parts) thro' the *Alps*, and conquered them, being 300000 fighting Men.

Between *Marius* and *Sylla*, who killed 12000 Citizens of *Praneſte*.

About *A. M.* 380. Between *Hannibal* and the *Romans*, the firſt at the River *Trebea*, the ſecond near the Lake *Traſimene*.

Between *Hannibal* and *Marcellus*, which laſt got the Victory; fought at *Nola* in *Naples*.

Between *Hannibal* and *Flaminius*, which laſt had 15000 of his *Romans* ſlain; fought near the Lake *de Perugia*.

near *Tholouſe* in *France*.

Between *Roderic*
King, with 130000 Foot a
and *Tariffe* (Leader of the
with 30000 Horſe and 18
Battle laſted ſeven days, t
the Victory.

Between *Vitellius*
Cremona.

Between *Anthony*
ſar, near *Perugia*.

Between *Aſdruba*
Conſuls *Livius* and *C. Ne*
Carthaginians were ſlain ne
taurus.

Between the *Spar*
bans, who overthrew the
Parapagian Plains.

Between *Pompey*
who was vanquiſhed at *An*

Between *Bajazet*
who was Conqueror at *Ang*

Between *Ventidius Baſſus* and the *bians*, who were vanquiſhed at *Pylæ Ci-*

Between the *Soldan* of *Egypt* and *et* II. at *Pylæ Ciliciæ*.

Between *Alexander* the Great and *ius*, King of *Perſia*, who loſt 400000 *ſians*, near *Schiahrazur* in *Aſia*.

Between Rich *Craſſus*, who with 00 of his Men, was ſlain, and *Phraartes Parthian*.

Between *Artaxerxes* and *Cyrus* for *Perſian* Crown, at *Caramon-Shaſhoon*.

Between *Tigranes*, King of *Arme-* with other Kings his Confederates, ing 220000 armed Men againſt *Lucul-* the *Roman*, who had not above 12 or 000 Horſe and Foot, yet got the Victory, ith the loſs only of 5 Men killed and 10 rt.

Tigranes jeſted at him, ſaying, if he came as Ambaſſador, he had many Men, but if to fight, very few.

Between *Baſilius* the Great Duke f *Muſcovy*, with 80000 Men againſt the *olonians*, whom he let paſs over a River, hen he might have had them at a great diſadvantage, bragging he would let them ſs over, that he might drive them all fore him like Beaſts into *Muſcovy*; but y got the Victory, killing 40000 *Muſco-ites*, and taking 5000 Priſoners.

Between *Tamerlane*, Vice-Roy of *artary*, and *Thuctamyſh*, Emperor of *Serai*, ho was defeated twice, the laſt Battle con-uing three Days.

Between *Semiramis*, the *Aſſyrian* mpreſs, and *Staurobates* an *Indian* King, aving each an Army of above three Mil-ons, (if *Cteſias* and *Diodorus Siculus* ſay ue) which laſt got the Victory.

Between

Between the *Roman*
King of *Epire*, near *Aſcoli*.

Between *Attilus* and
got the Victory, with the Slaug
and 10000 Priſoners, near *T*
cany.

Between the *Carthag*
tullus, fought in *Sicily*.

Between *Hunniades*
whom he ſet upon by Moo
10000 Horſe, killing 3000
taking 40000 Priſoners; ſo
River *Morava* in *Spain*.

Between *Hunniades*
of *Hungary*, who got the Vict

Between the Emper
the *Goths*, between whom we
ral Battles near *Mercianopolis*

Between *Mahomet*
chael Vaivod of *Walachia*, who
able Victory near *Nicopolis*.

Between *Cæſar* and

Between the *Lacedamonians* and *Pelopidas* and *Epamonidas*, who got their Victories at *Leuctra* and *Mantinea*.

Between the *Grecians* and *Perſians*, whoſe General was *Mardonius*, ſlain with 160000 *Perſians*, and of the *Grecians* but 699.

Between *Herculeius*, Treaſurer of *Sertorius*'s Army, and *Manilius*, Proconſul of *Gallia*, who loſt his Army, fought near *Lerida* in *Spain*.

Between *Cæſar* and *Vercingetorix*, King of the *Avernians* at *Alexia* in *France*.

Between the *Cratonians* and *Locrians*, where 120000 *Crotonians* were overcome by 15000 *Locrians*.

Between *Rowland* and *Oliver*, at the Head of 20000 *French*, who were routed by the *Moors* near *Roncevalles*.

A. C. 173. Between *Aurelius* with his Legion of Thunderers, (the Chriſtians) who had prayed and prevailed with Heaven, to diſcharge a Tempeſt upon his Enemies, the *Macronians*.

A. C. 198. Between *Severus* and *Albinus*, who loſt the Victory, the Battle being ſo bloody, that the River *Arar* changed its Colour, and was called *Sangone*, now *Saone*.

A. C. 732. *Charles Martel* diſcomfited the *Saracens* of about 450000, killing near 375000.

A. C. 1030. Between *Trangolipix* and the *Perſian* Sultan, who was overthrown by the *Turk*.

A. C. 1099. Between *Godfrey* of *Bulloigne*, at the Head of 300000 *Chriſtians*, and the *Turks*, who loſt the Victory at *Jeruſalem*.

A. C. 1139. Battle of *Obrique*. See Kings of *Portugal* in Chronology, and the Arms of the King of *Portugal* in Heraldry. *A. C.*

. 1509. Between *Albuquerque*, the Victori-
us *Portugal*, and *Idulcan*, fought at *Goa* in
he *Indies*; *Idulcan* having brought 70000
oot and 3500 Horſe to reduce *Goa*.

. 1514. Between *Selim* and *Iſhmael Sophi*,
ho loſt the Battle, that had always been
ictor before, fought in the *Candaran* Plains.
his is called by the *Turks* the Battle of
oomſday. See famous Paintings in *PAINT-
NG*.

. 1571. Between the *Venetians* and the
urks in the Sea near *Lepanto*, where 29000
urks were killed, 4000 taken Priſoners,
ith 140 Gallies, and 1200 Captive Chri-
ians redeemed.

. 1578. Between the *Chriſtians* and the
urks.

. 1620. Between *Frederick*, Prince Pala-

A. C. 1684. Duke of *Lorrain*, fought with 20000 *Turks*, and got a Compleat Victory, taking 18 Standards, 1500 Priſoners, *&c.*

A. C. 1691. The bloody Fight at *Agrim* in *Ireland*, in which the *Iriſh* Army was defeated; after that *Gallway*, *Limerick*, &c. ſurrendred upon Conditions.

A. C. 1692. A Terrible Sea-Fight between the *French*, and *Engliſh* and *Dutch* Fleets, on the 19th of *May*; wherein the *French* were beat.

A. C. 1692. *Auguſt* the 3d, the Terrible Battle of *Steenkirk* in *Flanders*.

A. C. 1694. The bloody Fight at *Landen* in *Flanders*.

A. C. 1705. Duke of *Marlborough* overthrew the *French* and *Bavarians*, and took 11000 Priſoners.

A. C. 1707. Duke of *Marlborough* won the Battle of *Ramelies*.

See more in the Chronology of *England*, *Germany*, *France*, *Spain*, *Portugal*, &c.

The moſt famous Maſſacres have been 1. *The general Maſſacre of the Men at* Cappadocia, *whoſe Widows were the* Amazons. 2. *The Maſſacre of a Hundred and fifty Thouſand* Roman *Soldiers diſperſed in* Anatolia, *all in one Night.* 3. *The Maſſacre of the* Danes *in* England *on St.* Brice's *Night*, 13. Nov. Anno 1002. 4. *The Maſſacre of* Chabriers *and* Merindol *in* France, Anno 1545. 5. *The great Maſſacre at* Paris, Anno 1572. 6. *Of* Sicily, *called by the Name of the* Sicilian Veſpers. 7. *Of the Proteſtants at* Ulſter *in* Ireland, 23. Oct. 1641. *&c. And here I cannot omit the memorable falſe Alarm of an* Iriſh *Maſſacre*, Decem. 12 1688. *which run all over the Kingdom.*

CASTLES *and* TOWNS *that have been eſteemed Impregnable.*

Caſtles and Towns that have been eſteemed Impregnable.

1. *Boiſleduc* in *Spaniſh Flanders*.
2. *Candia* in the Iſle of that Name.
3. *Coeverden* in the *United Provinces*.
4. *Caſal*, belonging to the Duke of *Mantua*.
5. *Croia* in *Greece*.
6. *Elſingburg* Caſtle in *Denmark*.
7. *Jaicza* in *Dalmatia*.
8. *Leghorn* in *Tuſcany*, the ſtrongeſt City in the *Mediterranean*.
9. The Caſtle of *Lacedæmon*, never taken, as Hiſtories ſay.
10. *Meſſina*

18. Kotas in [illegible]

19. *Zara* in *Da tia*, and

20. *Dunkirk*, which tho' la haps better deſerves the Name nable than ever did any of the in the Parliament of *Great-Brit* Mr. Secretary *Boyle* made a M ſiſting in the enſuing Treaty *Dunkirk*, with its Fortificatio be demoliſhed, which was una ved.

Note, The Modern way of well known, that I purpoſel you that of the laſt Century, much vary in the Exerciſe c ſelf.

AUTHOR

Polybius, *Stevin*, *Herigone*, *of War*, *Machiavel. Art da la ction pour le Gens de Guerre*, *litaire*, French. *Monroe's Ex*

Of FORTIFICATION.

MILITARY Architecture, or the Art of Fortification, is of great Moment for the Defence of Countries, and Offence of Enemies; for this Art teacheth how to build a Fortreſs, Works, *&c.* in ſuch a manner, that the Enemy, on what ſide ſoever he makes his Approach, may be beat back by the leſſer Number.

Every Point of the Circumference of your Fortreſs, *&c.* muſt be defended by ſome other Part of the ſame; and your Works require to be Flanked, to keep the Enemy from a ſudlain Entrance, where any Breach is made by the great Guns; for if the Beſiegers have made their Approaches ſo near, that the Beſieged's Cannon in the Front are diſmounted, then you may be aſſured their Deſign is to put their Miners to paſs the Ditch; and then if they perceive any Place out of ſight of the Beſieged's Firing, they will have an Opportunity to make their Mines with leſs difficulty; ſo that a Place, unleſs the Garriſon be very large, to make frequent Sallies, may be taken in 8 or 10 Days; that with Flankers might hold out much longer: So that it has been the Practiſe of late, to turn the ancient round Baſtions into ſharp pointed ones, which not only, upon occaſion, ſerves for Flankers to defend againſt any haſty Approach, but to daunt and hinder the Force of the great Shot playing againſt the Town or Fort.

The great Line of Defence is to be conſidered (amongſt other Things neceſſary on this Occaſion) or what may be found near equal unto

o it, *viz.* the *Polygon Interior*, which in
t Caſes ought not to exceed 120 Fathoms,
720 Feet; and this is found to be a Point
nk of the Execution of a Muſquet, the
nnon being here incommodious, and there-
e the Defence is to be taken from the for-
r, the latter, beſides the Waſte of Ammu-
on, lying much liable to be diſmounted,
not ſo eaſily again remounted, as the
ergency requires, and the Difficulty is
ewiſe greater in maintaining a continual
e, and if their Work be not incommoded
their over-largeneſs, the more capacious the
ges and Flanks are, the better will the
tification be found for Defence, for then
Soldiers may paſs to and fro in a good
nt to the Baſtion, when Cannon are plant-
on both ſides the Flanks, and give no In-

and ſo cut off the ſecond Flank, whilſt it ought to be held conſiderable.

The Degrees of the Angle of a Baſtion ought not to be leſs than 60, or more than 90, ſome ſmall matter allowed over or under; and the reaſon is, if it be much under 60, it will be found too ſlender, or above 90, too large, or more than may well be ſupplied; and moreover by that the ſecond Flank is ſhortned, and it will be computed in leſs Ground than the Baſtion, where it is an Angle of leſs Degrees, tho' built on the like Gorge and Flanks; and obſerve in all your Works to let them be Cannon-Proof. The Degrees of the Angle of a Baſtion.

According to the *Dutch* Method of Fortifying, the Angle of the Baſtion, or the flanked and defended Angle, exceeds always by 15 Degrees the half of the Angle of the *Polygon*: Upon this Account 'tis that the Angle of the Baſtion is never ſtraight, or of 90 Degrees, unleſs in a Place defended by 12 Baſtions, but in Places defended by more than 12, it is always ſtraight. *Dutch* Method of Fortification.

According to the *French* Method, if the *Polygon* be a Triangle, the Angle of the Baſtion contains 45 Degrees; if it be a *Pentagon*, or of 5 Angles, it contains 78 Degrees; if the *Polygon* have more than 5 Sides, the Angle of the Baſtion is ſtraight, or is open 90 Degrees. The *French* Method.

If we proceed to a Deſcription of Regular Fortification, it is to be underſtood of ſuch Models as are equally Angular, and founded upon Equilateral Figures, to be deſcribed in a Circle, as it may be a Triangle, Quadrangle, or a Quartile *Pentagon*, or a Figure of 5 Sides to a *Dodecagon*, or a Figure of 12 Sides; and in this Caſe the Baſtion muſt be ſo poſited, that all the Points may anſwer in like di- Regular Fortification.

ce from the Center. The Curtains of
al length, and all the Angles and Lines to
of an equal magnitude; for Regular Mo-
s are to be computed from a Calculation
the Angle at the Center, and that is done
dividing 360, the Number of the Degrees
a Circle is uſually divided into, and
rein the Regular Figure is to be deſcribed
the Number of any *Polygon*'s Sides, or the
gular Figure that any Fort or Work of
r of this Nature is to conſiſt on; for here-
the Quotient demonſtrates the Angle of
Center, as may be demonſtrated by a Fi-
e of five Sides, wherein, by Operation, the
gle of the Center is certain to be 72 De-
es, and the like of any other Figure; then
ou draw a Circle with the Protractor, or
e of Chords, the firſt being a Semi-Circle,
the laſt the half part of a Semi-Circle, or

Ravelin are an uſual Outwork, of which are uſually two ſorts, one with Lines, and the other without. The Firſt of theſe are placed before long Curtains, where the Two Baſtions are not capable of flanking each other within Muſquet-ſhot; and the Length of the Curtain not ſufficient for the Erecting a Plate-Baſtion in its Centre, and ſupply the Defect of a Baſtion by covering and defending. And to erect theſe Kinds, the Ditch muſt be cut Parallel with the Curtain, and above it erect a Capital from 18 to 20 Poles, and let your Demigorges be no more than from 10 to 12 Poles the Flanks, from 8 to 10 the Ditch, ſurrounding them, and the Greatneſs of the Flanks Parallel to the Face of the *Ravelin* till the Ditch of the Place of the Face of the Baſtion be met by it, that ſo the *Ravelins* Flanks may ſcoure over all the Ditch that faces the Baſtion. *Ravelins* without Lines conſiſt only of a Capital and two Faces, the Capitals from 12 to 18 Poles the Face edging or drawing nearer to the Shoulders of the Baſtion, that within the *Ravelin* may be commanded by the Curtain and two Flanks. Ravelins.

The *Half-Moon* is a Work always raiſed before the Baſtion's Point, being ſo named from the Lowneſs of its Gorges Cavity, *&c.* and is to ſecure the Two Faces of the Baſtion; but when the Faces have but a weak Defence from the *Ravelin*, theſe Works are ſoon made uſeleſs or ruined, and give the Beſieged an opportunity of Lodgment, and may ſerve for Batteries and Flanks againſt the oppoſing Baſtions; however they may be retrenched by Traverſes, yet they will not fail to attack entirely in the Face, or where you have your laſt Retrenchment, alſo that called the Counterguard runs the like Hazard. Half-Moons.

Hornworks are alſo Outworks placed
Curtains, a Perpendicular Line being
n it at the two Flanks about 60 Pole
ards the Campaign, their Front to
es equal to the Curtain, to be divide
arts, one of them for the Curtain, a
r for the Demigorges appertaining
nwork: As for the Flanks, they are
ls or 72 Foot each. And this Work is
ne of the beſt and ſtrongeſt Outworks,
nned and managed, eſpecially when a
is placed before it.

The *Tenails* is an Outwork that is b
re the Bridge when it is hard preſſed
r Sides, containing 50 Poles, and the
more than 36; which being divided
al Parts, a Perpendicular is drawn
ddle, whereon a $\frac{1}{8}$ of the Front is ſet
ds towards the Town, and the Line

AUTHORS,

Ezzard of *Barleduc. Samuel Marolois. Adam Fritach. Stevin*, in *Italian*, and others. See *Dechale's Fortification*, *French*. *Vauban's Fortification*, *French*. *Fortification de Monſ. Coehorne*, *French*. *Fortification Francois*, *Eſpagnoli*, *Italiennè*, *& Hollandois*, in *French*. *Del Cavallero Francino Tenſinii*. *Del Cavallero Aleſſandro Baron de Groot*. *Herigone*. *Coehorne's*.

Of GUNNERY.

GUNNERY is chiefly the Art of Fortifying Cannon, Culverins, *&c.* for Execution in War, and is the chief Buſineſs of the Ingineers in Armies, either for battering a Town, or its Walls; alſo Caſtles, or Battalions and Squadrons lodged upon a Hill; likewiſe for cutting off Rigging, *&c.* at Sea; and the Uſe of Mortars for firing Towns, *&c.*

The Names of the principal Parts of a Piece of Ordnance, are as follow, the Outſide round about the Piece is called, The Superficies of her Metal; The Subſtance or whole Maſs, The Body; The Hollowneſs or Concavity, The Bore; So much of her Hollowneſs as containeth the Powder and Shot, The Chamber; The Remainer, Her vacant Cylinder; The Spindals or Ears, The Trunnions; The Pummel at her Coyle, The Caſſacabel Deck; The little Hole, The Touch Hole; All the Part behind the Touch Hole, Her Breech or Coyle; The greateſt Ring at her Touch Hole, Her

The Names of the principal Parts of a Piece of Ordnance.

Ring; The next Ring above the Touch-
e, Her Reinforced Ring; The next her
nnion Ring, The Ring next her Mouth;
Muzzle Ring, The Ring between the
nnion Ring and Muzzle Ring; Her Cornish
g; All the Rings and Circles about the
zzle; The Frieze; The whole Length; The
ſe.

Of *Powder*, regard muſt be had to the
ngth and Goodneſs thereof, which is to
ordinary Corn Powder, and then $\frac{2}{3}$ of the
ight of the Iron Bullet for Proof of your
non; but for Service, half the Weight of
Bullet is enough eſpecially for Iron Guns,
ch will not endure ſo much Powder as
ſs Ordnance by one Quarter. For Culver-
s, the whole Weight of their Shot for Proof
for Action $\frac{3}{4}$. For the Saker and Falcon

A TABLE of GUNNERY.

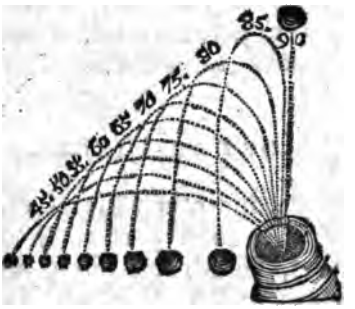
The Names of the several Pieces of Ordinance.	Guns Length. Feet.	Guns Length. Inches.	Guns Weight. Pounds.	Guns Bore. Inches.	Guns Bore. 8 Parts.	Bullets Diameter. Inches.	Bullets Diameter. 8 Parts.	Bullets Weight. Pounds.	Bullets Weight. Ounces.	Ladles Length. Inches.	Ladles Length. 8 Parts.	Ladles Breadth. Inches.	Ladles Breadth. 8 Parts.	Powder Weight. Pounds.	Powder Weight. Ounces.	Shoots Level. Paces.	Utmost Random. Paces.
A Base,	4	6	200	1	2	1	1	0	5	4	0	2	0	0	8	60	600
A Rabinet,	5	6	300	1	4	1	3	0	8	4	1	2	4	0	12	70	700
A Falconet,	6	0	400	2	2	1	2	1	5	7	4	4	0	1	4	90	900
A Falcon,	7	0	750	2	6	2	5	2	8	8	2	4	4	2	4	130	1300
Minion Ordinary,	7	0	800	3	0	2	7	3	4	8	4	5	0	2	8	120	1200
Minion Largeſt,	8	0	1000	3	2	3	0	3	12	9	0	5	0	3	4	125	1250
Saker Leaſt,	8	0	1400	3	4	3	2	4	12	9	6	6	4	3	6	150	1500
Saker Ordinary,	9	0	1500	3	6	3	4	6	0	10	4	6	6	4	0	160	1600
Saker old ſort,	10	0	1800	4	0	3	6	7	5	11	0	7	2	5	0	163	1630
Demi-Culverin Leaſt,	10	0	2000	4	2	4	0	9	0	12	0	8	0	5	4	174	1740
Demi-Culverin Ordinary,	11	0	2700	4	4	4	2	10	11	12	6	8	0	7	4	175	1750
Demi-Culverin old ſort,	11	0	3000	4	6	4	4	12	11	13	4	8	4	8	8	178	1780
Culverin Leaſt,	11	0	4000	5	0	4	6	15	0	14	2	9	0	10	0	180	1800
Culverin Ordinary,	12	0	4500	5	2	5	0	17	5	16	0	9	4	11	6	181	1810
Culverin Largeſt,	12	0	4800	5	4	5	2	20	0	16	0	10	0	11	8	183	1830
Demi-Cannon Leaſt,	12	0	5400	6	2	6	0	30	0	20	0	11	4	14	0	156	1560
Demi-Cannon Ordinary,	12	0	5600	6	4	6	1	32	0	22	0	12	0	17	8	162	1620
Demi-Cannon Large,	12	0	6000	6	6	6	3	36	0	22	6	12	0	18	0	180	1800
Cannon Royal,	12	0	8000	8	0	7	4	58	0	24	0	14	6	32	8	185	1850

Of Gunnery.

adles ought to be ſo proportioned for every
n, that two Ladlefuls of Powder may Charge
Piece; and the breadth of all Ladles to be
Diameters of the Shot, that ſo a third
t of the Compaſs may be left open, for the
der to fall freely out of the Ladle. Their
gth muſt be different, according as the Piece
ortified.

To know how far any Piece of Ordnance
ſhoot, there is much difference among
hors, but all agree in this; firſt, that the
let is carried from the Mouth of the Piece
e violently, and for a good ſpace in a
ight Line, but afterwards as it proceeds
her, as the violent force of the Motion
teth, ſo the Bullet ſinketh down by de-
s 'till it graze upon the Ground. The
t Range of every Piece being diſcharged

you could ſhoot exactly upright, the Bullet would fall down into the Piece again.



There are three Degrees uſed in Fortifying each ſort of Ordnance, both Cannons and Culverins. Firſt, Such as are ordinarily fortified, which are called Legitimate Pieces. Secondly, Such whoſe Fortification are leſſened, which are called Baſtard Pieces. Thirdly, Double fortified Pieces, or extraordinary Pieces. This Fortification is reckoned by the thickneſs of the Metal at the Touch-hole, at the Trunnions, and at the Muzzle, in Proportion to the Diameter of the Bore. Fortifications of Ordnance.

The Cannons double fortified have full one Diameter of their Bore in thickneſs of Metal at their Touch-hole, and $\frac{11}{12}$ at their Trunnions, and $\frac{7}{12}$ at their Muzzle. The leſſened Cannons have at their Touch-hole but $\frac{3}{4}$ or $\frac{12}{16}$ of the Diameter of their Bore in Thickneſs of Metal, and $\frac{9}{12}$ at their Trunnions, and $\frac{5}{12}$ at their Muzzle. The ordinary fortified Cannons have $\frac{7}{8}$ at the Touch-hole, $\frac{1}{8}$ at the Trunnions, and $\frac{3}{8}$ at the Muzzle. All the double fortified Culverins, and all leſſer Pieces of that kind, have

ve one Diameter and $\frac{1}{8}$ at the Touc
at the Trunnions, and $\frac{2}{12}$ at the M
d the ordinary fortified Culverins ar
l every way as your double fortifie
ns, and the leſſened Culverins as
ary Cannons in all Points. An
to

MORTAR-PIECES.

As Cannons and other Pieces of Or
uſed for the moſt part to ſhoot f
r a Level, ſo Mortar-Pieces are u
ot upward, and at Random, into
. and therefore the Randoms of theſe
very neceſſary to be known. An
the Tables found thereof agree in
ndoms, tho' they appear in ſeveral I
e of the beſt whereof is that one take

Mr. Norton's Table of RANDOMS for Mortar Pieces.

Degrees of Mounture.	The Yards of the Random.	Diff.	Degrees of Mounture.	The Yards of the Random.	Diff.	Degrees of Mounture.	The Yards of the Random.	Diff.
45	750	6	61	603	12	76	362	21
46	744	7	62	591	12	77	341	21
47	737	7	63	578	13	78	330	21
48	730	7	64	564	14	79	298	22
49	723	8	65	550	14	80	275	23
50	715	8	66	536	15	81	251	24
51	707	8	67	521	15	82	227	24
52	699	9	68	506	16	83	202	25
53	690	10	69	490	16	84	176	26
54	680	10	70	474	17	85	149	27
55	670	10	71	457	18	86	121	28
56	660	11	72	439	18	87	92	29
57	649	11	73	421	19	88	62	30
58	638	11	74	402	20	89	31	31
59	627	12	75	382	20	90	00	31
60	615							

See *Phillip's Mathematical Manual*, &c.

Of ASTRONOM

ASTRONOMY is a very A
ence, being well known to t
dians, *Egyptians*, *Moors*, *Chaldeans*, *
bians, and others, tho' there hath
differences (in reſpect of the Fun
of this Art) amongſt them, as well a
dern Aſtronomers; to dive a little
Matter, it will be convenient to de
may be neceſſary concerning the di
ſtems of the World; the firſt, as bein
moſt conſonant to the Letter of Scri

The *Ptolomean* Syſtem, the moſt
and invented by one *Claudius Ptolom*
tive of *Peleuſium*, about *Anno Chriſti*

nual Motion about the Sun which was fixed; and this Opinion our ableſt Aſtronomers embrace, tho' ſome few oppoſe it, rather for want of underſtanding the Symbolical Verbation of that Place in Scripture, where it is ſaid, *The Sun haſted not to go down.* See *Joſhua* 10. 12, 13. than that it muſt neceſſarily imply a Motion in the Sun. See hereafter as to Interpretation of ſome Paſſages in Scripture, in our Treatiſe of *ERRORS* of the People, and alſo at the end of our *ARITHMETICK*.

The *Tychonean* Syſtem, was invented by *Tycho Brahe*, a Nobleman of *Denmark*, and partakes of both the foregoing Hypotheſes. He alſo ſuppoſed that *Mercury*, *Venus*, and all the Planets, except the *Moon*, in their Motion, reſpect the Sun as their Center; ſo that *Saturn*, in oppoſition to the *Sun*, is nearer to the Earth than *Venus in Apogæo*; and that *Mars*, in oppoſition to the *Sun*, is nearer to the Earth than the Sun it ſelf. *Tycho Brahe's* Syſtem.

The Aſtronomers divide the World into two Eſſential Parts, that is, The World divided into

The *Terreſtrial*, or *Elementary* Part, containing the Element of Fire, next to the Sphere of the *Moon*, next which beneath is the *Air*, below that the *Water*, and the loweſt the *Earth*. Of which ſee more in the Treatiſe of *GEOGRAPHY*. Terreſtrial.

The *Celeſtial* containeth 8 ſay ſome, many 9, others 10, and not a few will have it to be 11 Heavens, which in Aſcending are thus ranked, 1. The Sphere of the *Moon*; 2. Of *Mercury*; 3. Of *Venus*; 4. Of the *Sun*; 5. Of *Mars*; 6. Of *Jupiter*; 7. Of *Saturn*; 8. The *Orb* of fixed Stars, called *The Firmament*; 9. The *Chryſtalline Heaven*; 10. The *Primum Mobile*; Celeſtial.

Mobile; 11. The *Imperial Heaven*, wh
and the Elect are believed to Reſide.

f The Magnitude of theſe Heavens ar
by their Courſes, which thoſe grea
within them make round the Poles of
diack. The *Moon* runs her Courſe
Heavens from Weſt to Eaſt in 27
Hours; *Mercury* in 88 Days; *Venu*
Days; *Sol* in 365 Days, 6 Hours;
about 2 Years; *Jupiter* in 12, and S
30. The Eighth Heaven hath a three
tion (ſaith the Modern Aſtronomers)
is proper, and is the Motion of Tre
which is finiſhed in 7000 Years; the
called the Motion of Circumvolutio
the Motion of the Ninth Sphere, and
ed in 49 Years; the Third is made
Tenth Orb, and is called the Motio
Primum Mobile, or the Rapid and

, called the *Artick Pole*; the other not
f us, becauſe in the lower Hemiſphere,
called the *South*, or *Antartick Pole.*

: *Axis* of the World is an Imaginary drawn from Pole to Pole, about which urnal Motion is performed from Eaſt to — The Axis.

Meridians are great Circles concurring terſecting one another in the Poles of the — Meridians.

Æquator, or *Equinoctial*, is a great Cir- Degrees diſtant from the Poles of the , cutting the Meridians at right Angles, viding the World into two Equal Parts, the North and South Hemiſphere. — Equinoctial.

: *Zodiack* is a Zone having 8 Degrees on ſide of the Ecliptick, in which Space the s make their Revolutions, divided into ns, having 30 Degrees to each Sign, as *s*, ♉ *Taurus*, ♊ *Gemini*, ♋ *Cancer*, ♌ *Leo*, *o*, which are called Northern Signs; *a*, ♏ *Scorpio*, ♐ *Sagittarius*, ♑ *Capricor-* ♒ *Aquarius*, and ♓ *Piſces*, called the rn Signs. — Zodiack. — Twelve Signs.

Ecliptick is a Circle in the midſt of the k, touching the Equinoctial in the two te Points of *Aries* and *Libra*. The Sun ſwerves from this Circle. — Ecliptick.

Colures are two Meridians dividing the ctial and Ecliptick, into two Equal one of theſe paſſeth the Equinoctial of *Aries* and *Libra*, and is called the ctial Colure; the other by *Cancer* and *rn*, called the *Solſtitial* Colure. — Colures.

Poles of the Ecliptick are two Points, grees 30 Minutes diſtant from the Poles World. — Poles of the Ecliptick.

The

The *Tropicks* are two ſmall Circles to the Equinoctial, and diſtant there Degrees, 30 Minutes, limitting the Sun eſt Declination. The Northern Tr called the Tropick of *Cancer*; the S the Tropick of *Capricorn*.

The *Polar Circles* are two ſmall Ci rallel to the Equinoctial, and are diſta the Pole of the World 23 Degrees 30 M that which is adjacent to us, is called *tick Circle*, and the other the *Antar cle*.

The *Zenith* and *Nadir* are two Poi metrically oppoſite; the *Zenith* is the Point, or Point right over our Heads, *Nadir* is directly underneath our Fee oppoſite thereto.

The *Horizon* is a great Circle, 90 diſtant from the Zenith and Nadir

The *Latitude* of a Place is the height of the Pole above the Horizon, or the diſtance between the Zenith and Equinoctial. Latitude of a Place.

The *Latitude* of a Star is the Arch of a Circle contained between the Center of a Star, and the Ecliptick Line making right Angles with the Ecliptick, and is counted either Northward or Southward, according to the Situation of the Star. Latitude of a Star.

Longitude on the Earth is meaſured by an Arch of the Equinoctial, contained between the Primary Meridian (or Meridian of that Place where the Longitude is aſſigned to begin) and Meridian of any other Place, counted always Eaſterly. Longitude on the Earth.

Longitude of a Star is that part of the Ecliptick, which is contained between the Stars place in the Ecliptick, and the beginning of *Aries*, counting them according to the Succeſſion of the Signs. Longitude of a Star.

Altitude of the Sun or Stars is the Arch of an Azimuth, contained betwixt the Horizon and Center of the Sun or Star. Altitude.

Aſcenſion is the riſing of any Star, or any part of the Equinoctial above the Horizon. Aſcenſion.

Deſcenſion is the ſetting thereof. Deſcenſion.

Right Aſcenſion is the Number of Degrees and Minutes of the Equinoctial, (counted from the beginning of *Aries*) which cometh to the Meridian with the Sun or Stars, or with any Portion of the Ecliptick. Right Aſcenſion.

Oblique Aſcenſion is an Arch of the Equinoctial, between the beginning of *Aries*, and that part of the Equinoctial that riſeth with the Center of a Star, or with any Portion of the Ecliptick in an Oblique Sphere. Oblique Aſcenſion.

Eaſt to Weſt Point of the

Parallax. The *Parallax* is the di
true and apparent Place o

Refraction. *Refraction* is cauſed by
vaporous thickneſs of the
Superficies, whereby the
always to riſe ſooner a
reality they do.

The Two Hemiſpheres. Of the *Two Hemiſphe*
the one ſhews the Conſte
thern, and the other of
ſpheres of the Heavens,
the Right Aſcenſion and
the Stars in either Hemi
Star may be eaſily fou

Of Comets. See in the Treatiſe of *Meteors.* Courſe of a New Star or
in its Way or Orbit, wit

Altho' (as *David* ſaith
Stars is only known to
mers, by their Teleſcop
found and diſcovered m

Fixed Stars. all the fixed Stars (ſo ca

mentary Matter, formed into fiery Globes, and conſiſting of Matter, Solid and Liquid, as this Terraqueous Globe below. Their Light, ſome conſider to be innate, others think it borrowed of the Sun. Their Colour various, according to the difference of their Light, tempered by the divers Conſtitutions of their Matter or Subſtance, ſome appearing Ruddy, others Bright, *&c.* whence ſome have made an Eſtimate of their Natures, and ranged them under the ſeveral Planets. Their Scintillation diſtinguiſheth them from the Planets, which have no ſuch Twinkling or Glimmering Light. Their Figure, tho' ſeemingly round, are not mathematically ſo; for their Superficies are diſcovered to be uneven by Teleſcopes, and to conſiſt of many Angles and Sides. As to their Number, ſome Aſtronomers compute the moſt noted to be 1022, but *Galilæus* found 62500 Stars, where but 63 appeared to the bare Eye. As to their Magnitude, they are diſtinguiſhed into Six Differences; the Aſtronomers appointing to

Their Light.

Their Colour.

Their Figure.

Their Number.

Their Magnitude.

The Firſt Magnitude 15 Stars, whereof each one contains the Earth 207 times.

The Second Magnitude 45 Stars, whereof every one contains the Earth 90 times.

The Third Magnitude 208 Stars, whereof each one contains the Earth 72 times.

The Fourth Magnitude 474 Stars, whereof every one contains the Earth 54 times.

The Fifth Magnitude 217 Stars, whereof each one contains the Earth 50 times.

The Sixth Magnitude 49 ſmall Stars, which contain the Earth 18 or 20 times.

Beſides, there are 14 others, whereof 5 are called Cloudy, and the other Miſty or Dark, becauſe hardly to be perceived. Theſe make

uſt the Number of 1022, as before alledged.
for the better Knowledge of the 48 Con-
ations, and the chief or moſt viſible Stars
in them, take this following Account, be-
ning with the 12 Signs, thro' which the Sun
eth Annually in the Zodiack; the firſt of
ch is

ries, or the Ram, in which Conſtellation
e Stars are moſt conſpicuous, *viz.* two in
left Horn, and one diſpoſed between the
ns.

n *Taurus*, or the Bull, are the ſeven Stars,
ed the *Pleiades* in his Neck, and five called
Hyades, near the great bright Star, called
baran, or the Bull's Eye.

n *Gemini*, or the Twins, are four Stars,
of which is on the North Head of the
ins, and called *Caſtor*, another in the South

or Table, and three or four reſembling a Bow, with one imitated on an Arrow.

In *Capricornus*, or the Goat, are four, two in his Tail, and two other in his Horns. 10. Capricorn.

In *Aquarius*, or the Water-Bearer, are ſeveral Stars of the Firſt, Third, and Fourth Magnitude. 11. Aquarius.

In *Piſces*, or the Fiſhes, are ſeveral ſmall Stars, but bound with a Ribband, adorned with Stars of the Firſt Magnitude. 12. Piſces.

Theſe 12 Signs, or Conſtellations, are all diſpoſed in the Zodiack: To know the Time the Sun enters any of theſe Signs, you may have recourſe to every common Almanack; but it being of more curious Satisfaction, and utterly unknown to many, the Invention of theſe Myſterious Portraictures, given through Aſtronomers Obſervations, (the Antiquity whereof is great, as may be found by that of *Job* 9. 9, 38, 31.) we ſhall inſert ſomething from *Marſilius Ficinus*, in the Third Chapter of his Commentary upon the Third Book of the Second *Ænead.* of *Plotinus* the Platonick Philoſopher.

The Myſterious Signification of the Images & Signs in the Zodiack.

The Ancients put the *Ram* firſt for the Love of *Jupiter Ammon*, whom they figured with Horns on his Head (as now Painters do by *Moſes*) and the Sun then, (*viz.* in *March*, when he enters this Sign) begins to recover his Force, yet is of a mild Nature, as the Sheep are. *Ficinus* adds, that the *Bull* is next, becauſe at that time the Earth is to be manured. Then the *Twins*, becauſe of the Increaſe and Multiplication of Cattle, *&c.* which germinate and entertain one-another. The *Crab* followeth, becauſe the Sun that Month retireth, as the Crab doth in its Motion, which is al-

part of the Zodiack, the
and wax Cold. The *Arc*
reaſon of his Vehement C
rows, which ſhoot forth
Goat, becauſe the Sun begi
in a manner to be nimbl
Water-Bearer and his *Fiſ*
Rains and Humidity of
Months of *January* and *Fe*

But now it is time we r
lations without the Zodia
that next the Pole.

13. Urſa Minor. *Urſa Minor*, or the Lit
Stars, four whereof are al
gure, the other three ar
hindermoſt and brighteſ
The North Star. North Star, becauſe the
Pole of any viſible Star.

14. Urſa Major. *Urſa Major*, or the G
ſeven Stars in like Poſiti

The *Dragon* hath many Stars, but none greater than thoſe of the Third Magnitude. 16. Draco.

The *Crown* of *Ariadne*, repreſents a half Circle, and is compoſed of five Stars. 17. Crown.

Engonaſi, or *Hercules*, is poſited Kneeling, and hath ſeveral great Stars. 18. Hercules.

Lyra, the Harp, hath the moſt eminent Star next to the Dog-Star, and ſome others. 19. Lyra.

The *Swan* is an illuſtrious Conſtellation within the milky Way, of which, ſee *Galaxy* hereafter. 20. Swan.

Cepheus hath nineteen Stars, great and ſmall, his right Foot ſtands on the Tail of *Urſa Minor*; he was Huſband to 21. Cepheus.

Caſſiopea, a Lady ſitting in her Chair, containing ten Stars, five of which are of the Third Magnitude. In *November* the 15th, *Eliz.* a Meteor reſembling a Star, (found to be above the Moon) was ſeen in *Cathedra Caſſiopea*, exceeding *Jupiter* in Brightneſs, and in that Place was carry'd with the Diurnal Motion of the Heavens ſixteen Months together, tho' after eight Months it was perceived to grow leſs and leſs. 22. Caſſiopea.

Perſeus placed between the Feet of *Caſſiopea* and the *Bull*, hath a bright Star on his Back, and another called *Meduſa*'s Head in his left Hand, and four more called *Gorgons*. 23. Perſeus.

Andromeda, Daughter to *Caſſiopea*, hath three Stars of the Second Magnitude; the laſt in the Head, common to her and *Pegaſus*. 24. Andromeda

Deltolton, or the Triangle, conſiſts of three bright Stars of the Fourth Magnitude. 25. Triangle.

Auriga the Waggoner hath three Stars, the chief called *Capra* the Goat, on the Shoulder. 26. Auriga.

Pegaſus, the Poets Horſe, hath ſeven great Stars, one called the *Mouth* of *Pegaſus*. 27. Pegaſus.

32. Serpentarius. *Serpentarius*, *Ophiu*
Bearer, is a large A
but hath no Stars bi
Magnitude. He is cal
33. Serpent. The *Serpent*, or *C*
Stars of the Third and

The following fifteen
viz.
34. Whale. The *Whale*, ſituate
having a vaſt wide Mo
of the Firſt Magnitude,
of the Jawbone of the
big in the midſt of the
ſides ſome other large
35. Eridanus. *Eridanus* is a River
Afteriſm, betwixt *Ori*
Stars are ſmall.
36. Hare. The *Hare* hath twe
Firſt Magnitude, and
ſmall, and placed in th
37. Orion. *Orion*, God of the Wi

Canis Minor riſeth before the Great Dog, and hath a bright Star in his Neck, and another in his Thigh, called *Procyon*. 39. Canis Minor.

The *Ship* hath but few Stars to be ſeen, except one at the Helm, called *Canopus*. 40. Argo.

Hydra, the Water-Serpent with many Heads; it is of great Extent, reaching almoſt in length 60 Degrees, and hath a bright Star on the Breaſt, called *Cor Hydræ*. 41. Hydra.

The *Bowl*, or Cup, on the midſt of *Hydra*, hath a C, or half Circle of Stars. 42. Bowl.

The *Crow* hath a Table in it, conſiſting of four pretty large Stars. 43. Crater.

The *Centaure*, beſides fourteen viſible Stars, (whereof ten are very apparent) hath four remarkable Stars, called the *Croſiers*, by which Mariners ſail in the Southern Heniſphere, as in the Northern by the Pole-Star. 44. Centaure. The Croſiers.

The *Wolf*, whoſe Head reacheth the middle of the *Scorpion*, hath nineteen, but not great Stars. 45. Wolf.

The *Altar*, or Cenſor, is for the moſt part hid under the bending of the *Scorpion*'s Tail. 46. Ara.

The *South Crown* hath one notable Star, among others, called *Uraniſcus*, or the Petty Heaven. 47. South Crown.

The *South Fiſh* hath many pretty large Stars, and one called *Fomahant*, very large in its Mouth. 48. South Fiſh.

The *Galaxy*, or milky Way, hath its Name from its white appearance, there being a vaſt Number of thick ſet Stars, which occaſion it to look ſo lightſom.

Note, That when the Sun, or any Planet is ſaid to be in any Sign, the meaning is that it is placed under it, or intervenes between our Eye and that Sign, the fixed Stars being infinitly

ſons; alſo the ſeve
Weeks, Months and
Benefit of this Scie
treat of ſomething th

Hour. 60 Minutes make
Day.

Artificial Day. An Artificial Day
ſet, of which, and o

Natural Day. A Natural Day, w
I ſhall ſpeak more at
Treatiſe of *Aſtronomy*

Week. Month, and Year. 7 Days make one
and 12 Months (ca
Months) or 13 Luna
which contains 365
of which ſee hereafter,
of the Etymologies of

Etymologies of the Week-days given by the *Saxons*. *Sunday* had its Name
adored on that da
Pagans

Thurſday, from the God *Thor*, or *Jupiter*, of great repute amongſt them, and adored on that day of the Week.

Friday, of the Goddeſs *Friga*, who was an Hermaphrodite.

Saturday, from the Idol *Seater*, that day being Celebrated to him.

See *Verſtegan*'s Antiquities, where you may ſee in Sculpture the Forms of theſe Idols, as anciently adored.

The *Latins* give other Names for the days of the Week, as *Sunday* they call *Dies Dominicus*, *Monday* they call *Dies Lunæ*, *Tueſday* they call *Dies Martis*; and the Aſtrologers ſay the Planet *Mars* governs the firſt Hour of that Day, of which ſee more in *ASTROLOGY*; *Wedneſday* they call *Dies Mercurij*, from the God *Mercury*, the Planet *Mercury* alſo governing the firſt Hour of that Day; *Thurſday* they call *Dies Jovis*, which God was the ſame with *Thor* above, and the Planet *Jupiter* governs the firſt Hour of that Day; *Friday* they Name *Dies Veneris*, from the Goddeſs *Venus*, which Planet alſo rules the firſt Hour of that Day; *Saturday*, or *Saturn*'s Day, called by the *Latins*, *Dies Sabbati*, being the Ancient *Jews* Sabbath. Of the Names of the ſeveral Feaſt-Days throughout the Year, I ſhall ſpeak at the end of this Treatiſe of *Aſtronomy*. *Latins.*

Numa Pompilius, diſpoſed the Year into Twelve Months.

Now to proceed to the Etymologies of the Months.

The *Saxons* called *January*, *Wolf-Month*; *February*, *Sprout-Kele*; *March*, *Length-Month*; *April*, *Oſter-Month*; *May*, *Trimilki*; *June*, *Weyd-*

(or Things paſt)
February took its N
then offered, cal
March, from *Mars*
about this Time
Field. This Mo
April ſignifieth the
ſpringing of the
from the word *A*
bles and other Tl
May, from *Maia*, N
June, from *Junius*
à *Juniore*; for t
had a meeting i
tion.
July had its Name
Cæſar; before tha
the Name *Quintil*
Auguſt had alſo the
ſecond *Roman* Em
Empire.
September ſignifieth

December the tenth Month. In all which Months the *Romans* had particular Times, which they diſtinguiſhed by the Name of *Kalends*, *Ides*, and *Nones*. Now the

Kalends were the firſt day of every Month, from which they counted backwards. As the firſt of *April*, they named the *Kalends* of *April*, and the laſt of *March*, *Pridie Kalendas Aprilis*, the day before that, the third *Kalends* of *April*, the next day before that, the fourth *Kalends* of *April*, and ſo on 'till they came to the *Ides*. This word *Kalends* came from the *Greek* Verb *Calo*, *viz.* to Call; for on the firſt day of every Month a Cryer ſtanding on a high Place made four or more Calls, to ſignify to the People how many days in that Month the Fairs or Markets called *Nundinæ* ſhould endure; from which word ſprung Kalends, what.

Nonæ, or *Nones*, that is to ſay, the Days of the Fairs, during which time the *Romans* worſhipped no God. Every Month had four *Nones*, except *March*, *May*, *July*, and *October*, which had ſix. Nones, what.

Ides were thoſe days by which the *Nones* were divided from the reſt, and were eight in every Month, dividing in a manner the Month into two equal Parts, for the firſt *Ides* commonly fell on the 13th, 14th, or 15th day of the Month. And here we may properly ſpeak of Ides, what.

The *Prime*, or Golden Number, ſo called becauſe marked in the Kalendar of *Julius Cæſar* with Letters of Gold, and is a Circle of nineteen Years; in which time it is ſuppoſed all the Lunations and Aſpects between the Sun and Moon did return to the ſame place, its Golden Number.

chief

chief Uſe being to find the Age and Cl
the Moon.

The *Cycle* of the Sun is a Revo
Number of twenty eight Years, in wh
is a change of all the *Sunday* Letters f
Year, whereby is known the true Ord
Sunday Letter; A. being placed aga
firſt day of *January*, and the reſt in
the Year's end.

To find the *Cycle* of the Sun by the
let 123, 24, 25, 26, or 27, be divide
(which is the *Cycle*, as above) and th
remains is the Number of Joints wh
be accounted upon the Fingers, by F
Dei, Cælum Bonum Accipe Gratis; an
the Number ends, that Finger ſhews
which is preſent, and the firſt Letter
Word in the Verſe, ſhews the Domin

ans uſed alſo a Diviſion of the Solar Month ito *Kalends*, *Nones*, and *Ides*, as is declared efore.

The *Muſcovites* begin the Year on the 1ſt f *September*. Of the ſeveral beginnings of the Year.

The *Egyptians* began the Year on the 21ſt f *March*, as ſome write; others ſay on the th of *September*, according to the *Gregorian* tile, or on the 28th (*Chamberlain* in his *Pre-nt State of* England, ſaith the 29th) day f *Auguſt*, according to the *Greek* Kalendar; nd ſo doth the *Portugueze*, as well as in divers ountries of *Africa*. See *Chronology*.

The *Ethiopians* begin the Year on the Ka-ends of *September*, as doth the *Muſcovite*, as ou may obſerve before.

The *Venetians* begin their Year on the 1ſt of *arch*, according to the *Epact*.

The *Grecians* on the longeſt day, as the old *omans* did on the ſhorteſt day, which two ſt ſeem to have moſt reaſon, as beginning uſt at the Periodical day of the Sun's Re-turn.

The Year in *England*, according to the *Cycles f the* Sun and Moon; and according to Al-anacks, begins on the 1ſt of *January*, but e *Engliſh* Church and State, as alſo her urts of Law, begin from 25th of *March*, ich is alſo obſerved in *Spain*.

Moſes by God's Commandment, *ab æquino-, verno*, i. e. *Eaſter*, according to which ſter-Day was ordained upon the Full of the on, being the 14th day of the firſt Moon er the Sun entered into the Sign of *Aries*, ich is alſo uſed in *Egypt*. Afterwards, in e Year 328. the Council of *Nice* did ordain ſter-Day always to be upon the Sabbath-y or Sunday next after the Full Moon.

And

d the Biſhop of *Alexandria* made thereupon
Liſt, according to the Circle or Golden
mber of the Moon, beginning from the Fi-
e 1, 'till Number 19; for that in 19 Years
Moon maketh her compleat Revolution,
d concurreth with the Sun, and if the Num-
did fall out upon a *Sunday*, then the *Sunday*
er was *Eaſter*-Day. The moſt certain way
find *Eaſter*, and the other Moveable Feaſts
England, is thus; *Shrove-Tueſday* is always
firſt *Tueſday* after the firſt New Moon af-
January, and the *Sunday* following is *Qua-*
geſima, and the ſixth *Sunday* after is *Eaſter-*
y, and the fifth *Sunday* after *Eaſter* is *Roga-*
n Sunday, (of which, and the Names of other
ſtival Days of the Year, you ſhall have
eſently) and the *Thurſday* following being
ty days after the Reſurrection, is *Aſcenſion-*
y, ten after which (or fifty days after

at that time was accounted to be the 21ſt *March*, and by conſequence muſt be the eſt Full Moon, and then *March* the 8th t be the earlieſt New Moon, and *April* the 1 the lateſt full Moon; which happening 1 *Sunday*, (as it will when the Dominical er is C. and the Golden Number 8.) then r that Year will be *April* the 25th. So 1 the New Moon ſhall be on *March* the 2d, it will when the Dominical Letter is D. the Golden Number 16.) then *Eaſter* will n the 22d of *March*, as it was in the Year 3.

ulius Cæſar, the firſt Emperor of *Rome*, idering the *Roman* Years were reckoned uſedly, according to the Courſe of the n, by the Counſel and Inſtigation of *So-es*, an expert Mathematician, about 44 rs before the Birth of Chriſt, deviſed a new 1 of Kalendar, firſt framed after the Courſe he Sun, dividing the Year into 365 Days 6 Hours. Now for as much as the odd ours could not be brought to Account eve-Year, he ordained that every fourth Year, day ſhould be added to *February*; (4 times ours making up a day of 24 Hours) and Year wherein this odd day falleth, we call *Year*, having 366 Days: And becauſe it added at the ſix Kalends of *March*, it is ed in *Latin*, *Biſſextus*, or *Biſſextilis Annus*. ertheleſs *Julius Cæſar* began his Kalendar *anuary*, when the Sun entereth the 8th De- of *Capricorn*, 8 days after the Winter *itium*, which then being the ſhorteſt day the Year, fell on the 25th of *December*, the Spring-Time *Equinoxium*, about the 1 of *March*; the which Places are now nged and ſlidden back in the *Julian* Ka-

Of the *Julian* Account, or Old Stile.

Leap Year.

Solſtitium.

Equinoxium.

lendar from the ſaid Obſervation
Spring *Equinoctium*, as alſo from the
Equinoctium, (about the 26th of *Septem*
longeſt day then falling out on the
June, grounded upon this reaſon of t
vention of the Equinoctial to the 12th
and 10th days of the ſaid Months,
13th and 14th of *September*. But th
cauſe proceeded by reaſon *Julius C*
reckon to the Year 365 Days and 6
which is more than the juſt Aſtronom
culation by 10 Minutes of an Hour,
Seconds, accounting 60 Minutes to a
and 60 Seconds to a Minute; ſo that t
truly containeth 365 Days, 5 Hours,
nutes, and 16 Seconds, which differenc
moſt 11 Minutes in the ſpace of abo
Years, maketh one whole Day; and
ſpace of 1664 Years, from the Time

Controverſy in divers Countries. Thus the Year being brought back 10 Days, the Vernal Equinox, which was at firſt on the 21ſt of *March*, was got back to the 11th of *March*, by reaſon whereof ſometimes 2 Full Moons paſs between the *Equinox* and *Eaſter*, contrary to the Primitive Inſtitution thereof; which was, that *Eaſter* ſhould always be obſerved as aforeſaid, *viz.* on the *Sunday* following the firſt Full Moon after the Vernal Equinox; therefore Pope *Gregory* reſolved to take away 10 Days at once, as I have already ſaid: And that the Equinox might never retrocede for the future, it was then provided that every 400 Years, 3 Biſſextile Years ſhould be left out, that is, in the Years 1700, 1800, and 1900; and ſo again in 2100, 2200, 2300, leaving the Year 2000 to have its Biſſextile, and ſo every fourth Year. The not reckoning the Year 1700, a Biſſextile, hath now brought the New Stile to be 11 Days before us, in our Accounts; and it happens in ſome Years that their *Eaſter* is full 5 Weeks before ours, but never after ours. And tho' our *Engliſh* Computation agrees with the Eaſtern Chriſtian Churches, with the *Switzers*, and thoſe of *Geneva*, yet cannot it be denied but this old Account is become Erroneous; for by our Rules, two *Eaſters* will be obſerved in one Year, as was *Anno* 1667. and not one *Eaſter* in another, as in the Year 1668. as hath been Stated, and formerly Repreſented in Propoſals to the Parliament.

A Reformation of the *Julian* Kalendar, with the Alteration of Ten Days.

And as by the Addition of Time growing by certain Minutes and Seconds every Year, ariſing to one whole Day in every 4th Year (in Februa- *as it is increaſed to ſeveral Days, it might by the ſame Rule decreaſe ſo much in few Years, by leaving out and ſuſpending that one Day*

which is ſo added, until it come to the
ſtitution and Calculation of the Julian K
which may be reformed in about 44 Y
52 *Years taken ſtrictly, and that wit*
perceptible difference; and after the
Years expired, might be added the ſ
again, and there would not increaſe any
more but in 134 *Years, and all the ye*
ſervations might be accommodated accord

As to the Diviſion of the Natu
Note, the Ancient *Athenians* began th
from Sun-ſet; the *Chaldeans*, *Jews*, a
Ionians, from Sun-riſe; the *Egyptians*
mans, from Mid-night; the *Umbrian*
Noon; the *Italians* reckon 24 Hour
ning from the ſetting of the Sun; the
divide the Natural Day into 4 Part
Sun-riſing to Noon, from Noon to

i, Sun-ſet; the Ninth, *Suprema Tempeſtas*, Evening Twilight; the Tenth, *Veſper*, or ening; the Eleventh, *Prima Lux*, or firſt ndle-time; the Twelfth, *Nox concubia*, the ond Candle-time, or Bed-time; the Thir- nth, *Nox intempeſta*, the Quiet, or Dead- ie of Night.

Diviſion of the *Jews* Artificial Day.

For underſtanding the Firſt Hour, Third ur, Sixth Hour, Ninth Hour, Twelfth ur, and Even-tide, mentioned in Scripture, l obſerved by the *Jews*, Note, that they di- led their Day (which was only from Sun- to Sun-ſet, called an Artificial Day) into ur Quarters, allowing to every Quarter ree Hours, accounting the Firſt Hour of Firſt Quarter, at the Riſing of the Sun, l the Firſt Hour of the Second Quarter, y called the Third Hour; and the Third ur of the Second Quarter, they called the th Hour, which was Mid-day; the Third ur of the Third Quarter they called the nth Hour; and the Second Hour of the urth Quarter, the Eleventh Hour; and Twelfth and laſt Hour of the Day, they l Even-tide. Thus having treated of the tural and Artificial Day, and whence the ys of the Week derived their Name, I nk it not improper to ſet forth the Names ſeveral of the Principal Feaſt-Days and mes in the Year, which are ſtill retained in Church of *England*, altho' the Religion is approved of in which they were Eſtabliſh-

The Names of the chief Feaſt-Days of the Year.

The Firſt of *January* is called *New-Years-*, as beginning the Year; the Sixth is cal- the *Epiphany*, which Word comes from the k, and ſignifies an Apparition; it is alſo led *Twelfth-Day*, being the Twelfth Day af- Chriſt's Nativity. *February* the Second is

nesday is ſo called from the Ancient Cere
of bleſſing Aſhes on that day, wherewi
Prieſt ſigned the People with a Croſs upon
Foreheads. *Maunday Thurſday* was ſo
quaſi Mandatum, the firſt Word of the
phon, anciently ſung in all Churches o
day. *Eaſter* is from *Oriens*, (i. e. the E
Riſing) one of the Titles of Chriſt. *Do*
in albis (commonly called *Low-Sunday*,
Octave of *Eaſter-Day*) had its Name fr
Catechumens, or *Neophites* white Gar
which they put on at their Baptiſm, a
lemnly put off with this day. *Rogatio*
Dies Rogationum, or *Gang-Week*, is ſo t
becauſe of the eſpecial Devotion of
and Faſting formerly enjoyned by the
to all Men, for a Preparative to the
Remembrance of Chriſt's glorious Aſc
and the Deſcending of the Holy Ghoſt
form of Cloven Tongues ſhortly after.
in that reſpect the Solemnization of
Matrimony was forbidden from the fir

ſome other Parts of *England*, it is called *ng-Week*, from the Ganging or Going in ɔceſſion, and the Perambulations formerly ɛd. *Pentecoſt*, in *Greek*, ſignifieth the Fifth, being the fiftieth day after the Reſurrection; but it is by Cuſtom called *Whitſunday*, from the *Cathecumens*, being anciently ɑathed in White, and admitted on the Eve this Feaſt to the Sacrament of Baptiſm. ɪe old *Saxons* called *Wied-Sunday*, i. e. *Holy-nday* in that Language, which alſo may ve been one occaſion of this Name. *Michaelmaſs* is from a ſolemn Maſs that uſed to be rformed, *September* the 29th, with particular Commemoration of St. *Michael* the Archɪgel, and of all the Nine Orders of Holy ngels; and it is ſometimes called the Dedi-ɪtion of St. *Michael*, from the dedicating a hurch in *Rome* to him by Pope *Boniface*. *ll-hallows-Day* was a Solemnity in Memory ɪd Honour of all the Saints. *Chriſtmaſs* was named from the Maſs celebrated on that ɑy to the Honour of Chriſt. *Childermaſs-ɑay* had its Name from the Maſs which that ɪy commemorated thoſe Children ſlain by *ɛrod*, and therefore called *Childrens-Maſs*, ɪd the day *Childermaſs-Day*. And *Ember-Days* o be found in every Almanack) had their ſame from an Ancient Religious Cuſtom of ɪting nothing on thoſe days 'till Night, and ɪen only a Cake baked under the Embers or ſhes, which was called *Panem Subcineritium*, mber-Bread.

Of Aſtronomy.

f the Science of *Aſtronomy*, you may read
y

AUTHORS,

f the Ancients, *Plato*, *Proclus*, *Ariſtotle*, *rro*, *Ptolomey*, *Aquilinus*, *Ritius*, *Albiteg-* *Johannes Regiomontanus*, *Tebith*, *Albuha-* *Alfraganus*, *Rabbi Levi*, *Zacutus Azar-* *es*, *Hay Benrodam*, *Shoner*, *Appion*, *Oronti-* *Cardan*, *Purbach.* L. *de Mountroyal*, *Blan-* *Rhinold*, *Ganric*, *Fricaſtor.*

f the Modern, *Greenwood*'s *Aſtronomy*, *Hy-* *s*, *Of the Celeſtial Signs*; *Peucer De variis* *nationum generibus*, *Piccolomini*'s *Treatiſe* *he Fixed Stars.*

ee alſo *Copernicus De Revolutionibus Orbium* *ſtium*, *Calcagninus*'s Works in *Italian*; *Baſ-* *in*'s *Aſtronomical Diſcourſes*, *Ranzovius*'s *ellency of Aſtronomy*, *Seller*'s *Atlas Cœleſtis*;

Of ASTROLOGY.

ASTROLOGY hath only this ſmall difference from Aſtronomy, that is to ſay, Aſtronomy inveſtigateth the reaſon of the variety of Heavenly Motions, the diverſity of Circles, Aſteriſms, Riſings and Settings of the Stars, and the like; and Aſtrology diſcourſeth of the variety of Conſtellations, Planetical Aſpects, diſpoſing of the Houſes; and by theſe and their Diſpoſitions, conjectureth of future Occurrences, undertaking to erect Celeſtial Figures, and to deſcribe the Meaſures, Motions, Shapes, Number, Nature and Reciprocal Harmony, and Influence of the Stars over Men. This is called the Divining or Foretelling part, otherwiſe termed Judicial Aſtrology, which treats of the Revolution of the Years of the World, of Nativities, of Horary Queſtions, and by what ſort of means to foretel and know future Events, and the Secrets of Divine Providence, thereby to avoid ill Succeſs, and ſecure the Undertaker of Proſperity; they alledging, the Influences do not compel, but incline only, yet *Zoroaſtes*, *Pharaoh*, *Nebuchadonozar*, *Cæſar*, *Craſſus*, *Pompey*, *Diotharus*, *Nero*, *Julian* the Apoſtate, *&c.* addicted to Aſtrology, were deceived by the Errors of their own Art. It is an Ancient Art, it being well known to the *Chaldeans* and *Egyptians*, who were great Proficients therein, even before our Saviour's Time, tho' there were ſome difference among the Profeſſors in their Fundamentals of this Science. *Beroſus* excelled in Aſtrology, wherefore the *Athenians*, for his Divine Prognoſtications, erected him a Statue

In *Alexandria*, a certain Tribute was Aſſeſſed on Aſtrologers, called *Blacenomium*, which ſignified Folly.

Judicial Aſtrology.

Aſtrological Tenet.

with a golden Tongue, ſet up in their lick Schools, as ſaith *Pliny*, Lib. 7. Cap.

aving ſpoke in *ASTRONOMY* of the elve Signs of the Zodiack, I ſhall here k only of their Diviſion into

Four TRIPLICITIES.

ry,	*Signs are*	♈ ♌ ♐	*Hot and Dry.*
ry,		♊ ♎ ♒	*Hot and Moiſt.*
rthy,		♉ ♍ ♑	*Cold and Dry.*
atry,		♋ ♏ ♓	*Cold and Moiſt.*

as to the Deſcription *and* Signification *of the Twelve* SIGNS.

ries is a Maſculine, Diurnal, Cardinal,

Gemini is a Maſculine Sign, Hot and Moiſt, Diurnal, Aerial, Humane, Double Bodied; the firſt of the Airy Triplicity. It perſonates an upright, tall, ſtraight, well-compoſed Body, of a Sanguine Complection, long Arms, Hands and Feet ſhort, Hair black, an Hazle-Eye, of an ingenious Fancy and good Underſtanding. It ſignifies curious Rooms that are Hung and Wainſcotted; Play-Houſes, Halls, or Dining-Rooms; Cheſts, Trunks, and Store-Houſes, and high Places. In the Fields, it ſignifies Hills and Mountains, *&c.* Signification of the Sign Gemini. ♊

Cancer is a Feminine, Nocturnal, Phlegmatick Sign, by Nature, Cold and Moiſt, of the Watry Triplicity, the only Houſe of *Luna*. It denotes a Perſon of middle Stature, his Complection, White and Sickly; his Viſage, Oval; his Hair, Dark-brown. It ſignifies moiſt, watry Places; alſo the Sea and Navigable Rivers; Springs, Brooks, and Marſhy Grounds. In Houſes, it ſignifies Sinks, Cellars, Waſh-Houſes. Signification of the Sign Cancer. ♋

Leo is a Sign, Maſculine, Diurnal, Beſtial, Cholerick, and Barren; a Commanding, Kingly Sign, Hot and Dry, the ſecond Sign of the Fiery Triplicity; the only Houſe of the Sun. Perſons that are born under *Leo*, are generally of a full large Body, Courageous and Stout, Hair of dark Flaxen, or yellowiſh; great Head, gogle Eyes, of a generous Diſpoſition, an aſpiring Brain, and an active Body. As to Places, it ſignifies Woods, Foreſts, and deſart Places, Rocks, Caſtles, Forts, and all inacceſſible Places; Kings Palaces. And in Houſes, Ovens, Furnaces, and Places near the Fire. Signification of the Sign Leo. ♌

Virgo is a Feminine, Nocturnal, Melancholy, and Barren Sign, and the ſecond of the Earthy Triplicity. It generally denotes one Signification of the Sign Virgo. ♍

of

ſlender Body, and of a middle Stature, ovely brown Complection, great Eyes, k black Hair; one of an ingenious Wit, h given to Learning. It ſignifies Cloſets, ies, Muſæums, and alſo Corn-Fields, t-Houſes, Dairy-Houſes, *&c.*

ibra is a Sign, Maſculine, Cardinal, Equi- ial, Diurnal, Sanguine, and Humane, and Moiſt; Weſtern, and of the Airy olicity. Perſons ſignified are generally -compoſed, comely, ſtraight Body'd, of nd and beautiful Viſage, Hair of a Flaxen, ellowiſh Colour, grey Eyes; and in Age e Pimples and high Colour, but Courteous, artial, and Juſt in their Actions. It ſig- s ſandy and gravelly Places. In the ſe, Garrets and upper Chambers, alſo -Houſe, Barns, *&c.*

high Places, Hills and Mountains. In Houſes it ſignifies upper Rooms, and Places near the Fire.

Capricorn is a Feminine, Nocturnal, Melancholly, Solſtitial, Moveable, Cardinal, and Southern Sign of the Earthy Triplicity. It naturally preſents one of little Stature, a dry lean Body, of a whitely Complection, thin Face, long Neck, narrow Chin, black Hair, but little on the Beard. It ſignifies Places where Cattle are put, and Implements of Huſbandry put up; alſo Barren, Thorny, and Fallow Fields. In Houſes, low Rooms near the Earth. Signification of the Sign Capricorn. ♑

Aquarius is a Maſculine, Diurnal, Fixed, Sanguine, and Humane Sign, of the Airy Triplicity. It denotes one of a ſtrong, well-compoſed Body, not very tall, but fleſhy, the Viſage Oval, of a clear Skin, and Sanguine Complection, generally ſandy Flaxen Hair. It ſignifies hilly Grounds, Mines, and Quarries of Stone, and Places digged up. In Houſes it ſignifies the upper Part, as Roofs, Eaves, *&c.* Signification of the Sign Aquarius. ♒

Piſces is a Feminine, Nocturnal, Phlegmatick, Northerly, Double Bodied Sign, the laſt of the Twelve, and of the Watry Triplicity. The Perſons ſignified are generally of a low Stature, not decent, broad Face, pale Complection, fleſhy Body, Hair of light Brown. It ſignifies watry Places, Fiſh-Ponds, Water-Springs, Water-Mills, Mooriſh moiſt Grounds, Caves, *&c.* In Houſes, Pumps, Wells, or any Place near Water. Signification of the Sign Piſces. ♓

PRO-

OPERTIES *and* INFLUENCES *of the* PLANETS.

aturn denotes in general, Lands, Houſes, ntry-Men, ancient People, *&c.*

upiter ſignifies Judges, Divines, Senators, nes, Law, Religion, *&c.*

Mars ſignifies Soldiers, Phyſicians, War, fe and Debate, Theft, and all Cruelty, *&c.*

ol ſignifies Honour, Greatneſs, Noble Per- s of all Degrees.

enus denotes Women, Pleaſure, Paſtime, uty, Mirth, all kinds of Delight, Per- nes, *&c.*

Mercury denotes all kinds of Scribes, Secre- es, Mathematicians, Servants, *&c.*

Luna ſignifies Women in general, and all mon and vulgar Perſons, *&c.*

A *Sextile* Aſpect is when two Planets are two Signs, or 60 Degrees diſtant, as ♃ in 15 Degrees of ♈, and ♄ in 15 Degrees of ♊; here *Jupiter* is in a *Sextile* Aſpect to *Saturn*. This is an Aſpect of Friendſhip. ✶ Aſpect, what.

A *Quadrate* Aſpect is when two Planets are 3 Signs, or 90 Degrees diſtant, as *Mars* in 10 Degrees of *Taurus*, and *Venus* in 10 Degrees of *Leo*; this particular □ Aſpect is of imperfect Enmity, and Aſtrologers ſay, that the Perſons ſignified thereby may have Jars at ſome times, but ſuch as may be reconciled again. □ Aſpect, what.

A *Trine* Aſpect is when any two Planets are 4 Signs, or 120 Degrees diſtant, as *Mars* is in 12 Degrees of *Aries*, and *Sol* in 12 Degrees of *Leo*. Here *Sol* and *Mars* are ſaid to be in *Trine* Aſpect. And this is an Aſpect of perfect Love and Friendſhip. △ Aſpect, what.

An *Oppoſition* is when two Planets are Diametrically oppoſite, which is when they are 6 Signs, or 180 Degrees, (which is one half of the Circle aſunder.) And this is an Aſpect of perfect Hatred. ☍ Aſpect, what.

A *Partile* Aſpect is when two Planets are in a perfect Aſpect to the very ſame Degree and Minute. Partile Aſpect.

Dexter Aſpects are thoſe which are contrary to the Succeſſion of Signs, as a Planet in *Aries* caſts his *Sextile Dexter* to *Aquarius*. Dexter Aſpect.

Siniſter Aſpect is with the Succeſſion of Signs, as a Planet in *Aries* caſts his *Sextile Siniſter* in *Gemini*. Siniſter Aſpect.

Application of the Planets is performed three ways; 1. When a light Planet being direct and ſwift in Motion, applies to a Planet more ponderous and ſlow in Motion, as *Mercury* in 8 Degrees of *Aries*, and *Jupiter* in 12 Degrees of Application of the Planets.

Gemini, and both direct; here *Mercury* ap-
es to a *Sextile* of *Jupiter* by direst Appli-
ion; 2. When they are both Retrograde,
Mercury in 20 Degrees of *Aries*, and *Jupi-*
in 15 Degrees of *Gemini*; here *Mercury*,
lighter Planet, applies to the *Sextile*
pect of *Jupiter*, and this is by Retrogra-
ion; 3. When one of the Planets are di-
, and the other Retrograde; as suppose
rcury were Retrograde in 18 Degrees of
es, and *Jupiter* direct in 14 Degrees of *Ge-*
i, here *Mercury* applies to a *Sextile* of *Ju-*
r by his Retrograde Motion.

Prohibition is when two Planets are apply-
either by Body or Aspect; and before
y come to their *Partile* Aspect, another
net meets with the Aspect of the former,
l so prohibits it.

Separation is when two Planets have been

Reception is when two Planets are in each others Dignities, and it may be either by Houſe, Exaltation, Triplicity, or Term. Reception.

Retrogradation is when a Planet moves backwards from 20 Degrees to 9, 8, 7. and ſo out of *Taurus* into *Aries*. Retrogradation.

Fruſtration is when a ſwift Planet applies to the Body or Aſpect of a ſuperior Planet; and before he comes to it, the ſuperior Planet meets with the Body or Aſpect of ſome other Planet. Fruſtration.

Peregrine is when a Planet is poſited in a Sign, wherein he hath no Eſſential Dignities. Peregrine.

Under the Sun Beams. A Planet is ſaid to be ſo 'till removed 17 Degrees from his Body. Under Sun Beams.

Void of Courſe. A Planet is ſaid to be ſo, when ſeparated from the Body or Aſpect of another Planet, and doth not apply to the Body or Aſpect of another Planet while he remaineth in that Sign. Void of Courſe.

Swift of Courſe, is when a Planet moves more in 24 Hours than his mean Motion; and he is ſaid to be Swift of Courſe.

Slow of Courſe, when he moves leſs in 24 Hours than his mean Motion. Slow of Courſe.

Cazimi. A Planet is ſaid to be in *Cazimi*, or the Heart of the Sun, when he is within 16 Minutes of his Body, in reſpect of Longitude and Latitude. Cazimi.

Beſieging. A Planet is ſaid to be beſieged when he is between the Bodies of *Saturn* and *Mars*. Beſieging.

Oriental is when a Planet riſeth before the Sun, and may be ſeen after Sun-riſing. Oriental.

Occidental is when a Planet ſets after the Sun and may be ſeen after Sun-ſet. Occidental.

Direct; A Planet is direct when he moves cording to the Succeſſion of Signs, and out 5 Degrees to 6, 7, &c.

Stationary is when a Planet moves not at all, hich they do before and after Retrograda- on.

Increaſing in Light is departng from *Sol*, or *l* from him.

Longitude and *Latitude* of a Planet, alſo *De- nation*, *Right* and *Oblique Aſcenſion*, &c. See fore in the *Aſtronomical Definitions*.

be KINGDOMS *and* CITIES *under the Twelve* Signs *and Seven* Planets.

Under *Aries* and *Mars*, are *England*, *France*, *rmany*, *Silcſia* the Higher, *Polonia*, *Den- rk*, *Burgundy*, *Syria*. Of Cities, *Ancona*,

er *Leo* and *Sol*, are *Gallia Togata*, the *Italy*, *Sicily*, *Apulia*, *Bohemia*, Part of *Sabina*, *Chaldea*, *Orchinia*. Of Cities, *o*, *Syracuſa*, *Rome*, *Ravenna*, *Cremona*, *nte*, *Prague*, *Lintz*, *Crimiſium*. — Kingdoms and Cities under ☌ and ☉

er *Virgo* and *Mercury*, are *Greece*, *Crete*, *Carinthia*, *Arthefina*, the Duke- *Athens*, *Meſopotamia*, *Babylon*, *Aſſyria*. ties, *Jeruſalem*, *Corinth*, *Rhodes*, *Papia*, *Brunduſium*, *Novaria*, *Lyons*, *Paris*, — Kingdoms and Cities under ☍ and ☿

ler *Libra* and *Venus*, are *Auſtria*, *Alſa- ivonia*, *Sabaudia*, *Delphinat*, *Thuſcia*, *Se- ſpia*, *Thebaida*, *Sundgavia*. Of Cities, , *Landaw*, *Sueſam*, *Placentia*, *Felkirk*, *Frankford* at *Mayn*, *Wimpina*, *Auſtria*, *ry*, *Landſhut*. — Kingdoms and Cities under ☌ and ♀

er *Scorpio* and *Mars*, are *Norway*, *Ba-* the Upper *Metagony*, *Cappadocia*, *Mauri- Fez*, *Gethulia*. Of Cities, *Algiers*, *Va-* in *Spain*, *Urbine*, *Peſtorium*, *Tarriſum*, *Fulium*, *Meſſana*, *Monacum*, *Ghent*, *ford* upon *Oder*, *Aichſtadt*. — Kingdoms and Cities under ♏ and ♂

er *Sagittary* and *Jupiter*, are *Spain*, *Dal- Sclavonia*, *Hungary*, *Moravia*, *Miſnia*. ies, *Toledo*, *Mutina*, *Narbon*, *Avignion*, *Agrippina*, *Stadgardt*, *Ludenburg*, *Bu- ſcovia*. — Kingdoms and Cities under ♐ and ♃

er *Capricorn* and *Saturn*, are *Macedonia*, *Thrace*, *Boſnia*, *Albania*, *Bulgaria*, Part *ece*, *Muſcovia*, *Ethiopia*, *Media*. Of Ci- *Oxford*, *Mechlin*, *Juliacum*, *Berga*, *Bran- rg*, *Auguſta*, *Conſtans*, *Derthana*, *Faven-* — Kingdoms and Cities under ♑ and ♄

der *Aquarius* and *Saturn*, are *Amazonia*, *nia*, *Tartary* the Greater, *Muſcovia*, the Part of *Swedeland*, *Moſel*, *Piedmont*, *a*, *Sogdiana*, *Media*. Of Cities, *Ham-* — Kingdoms and Cities under ♒ and ♄

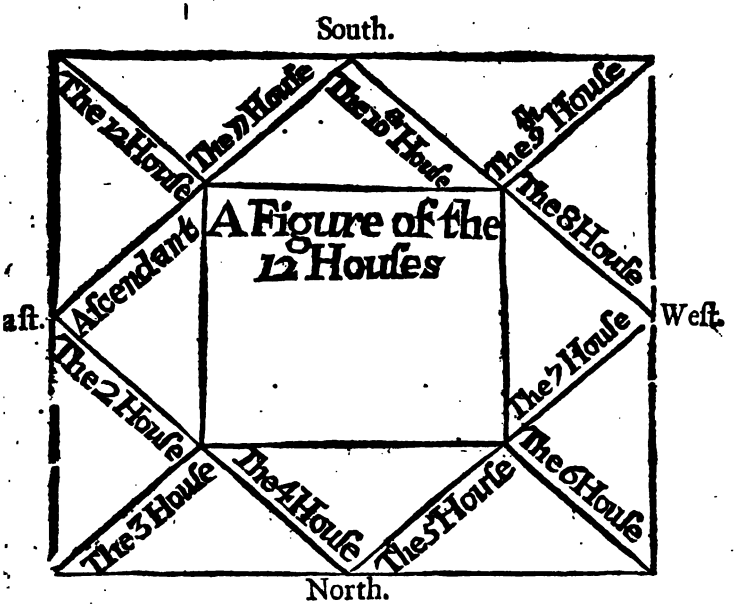
gh, *Bremen*, *Montſerat*, *Piſarum*, *Trent*, tzburg, *Ingolſtadt*.

Under *Piſces* and *Jupiter*, are *Cilicia*, *Cariana*, *Portugal*, *Galatia*, *Normandy*, *Phaſu-*, *Naſomina* in *Libya*, *Garamantis*. Of Ci-, *Alexandria*, *Hiſpalis*, *Compoſtella*, *Paren-n*, *Rhemes*, *Worms*, *Ratisbon*.

Note, That the *Milan* Almanack, and many phecies uſe theſe Signs and Planets, to de-e Countries and Cities where Events ſhall pen.

Table *ſhewing what* PLANET *Rules every Hour of the Day and Night.*

	Day.											
	1	2	3	4	5	6	7	8	9	10	11	12
NDAY,	☉	♀	☿	☾	♄	♃	♂	☉	♀	☿	☾	♄



The Aſtrologers draw their Table of the twelve Houſes as in the manner above, of which there are four Principal Angles, two of which fall equally upon the Horizon, the other upon the Meridian; that is to ſay, the Firſt, or Aſcendant) the Fourth, Seventh and Tenth, the following Houſes are called Succedent Houſes, the other Cadent Houſes; and in this manner they work, to erect an Aſtrological figure for ſtating an Anſwer to all their Horary Queſtions. And the Sigification of each Houſe appears in the following Verſes.

The Firſt Houſe ſhews Life, the Second, Wealth doth give;
The Third, how Brethren; Fourth, how Parents Live.

e the Fifth; the Sixth, Diſeaſes bring;
e Seventh, Wedlock, and the Eighth, Death's
Sting;
e Ninth, Religion; the Tenth, Honour ſhews;
endſhip the Eleventh, and the Twelfth our
Woes.

r more whereof, ſee the Authors at the end
this Treatiſe of *Aſtrology*.
For that there is collected many curious and
narkable Paſſages, which are delivered by
ſe who are great Favourers of the Art of
rology, endeavouring thereby to prove
Excellency and Ingenuity of this Science,
hall not be unwilling to divert the Reader
h the Curioſities are remembred in Hiſto-
&c. and doubt not but it will much pleaſe
m, who often endeavour to prove that

9. *Calanus*, an *Indian*, aſcertained *Alexander* the Great, that if he entered *Babylon*, he would die there. See an Account of this Man at the very end of the Treatiſe of PHYSICK.

9. *Aſcletarian* having foretold the Death of the Emperor *Domitian*, was ſent for by the Emperor, who aſked *Aſcletarian* if he knew his own Fate. To which he reply'd, *Yes*, he ſhould be torn to pieces by Dogs: The Emperor hoping to evade the Truth of all he had ſaid, ordered him to Execution, and that his Body ſhould be buried in a Ditch, and a great Quantity of Earth thrown upon him; but a great Rain falling, waſhed the Earth away, and his dead Corps was devoured by Dogs; nor did the Emperor live long after.

10. The Aſtrologer to *Frederick* II. Emperor of *Germany*, being aſked by the Emperor why he paid ſuch great Reſpect to *Rodolphus* Earl of *Hapsburg*, then but a poor Retainer at Court, anſwered, *Becauſe all your Majeſty's Sons being dead*, (of which the Emperor had Ten then alive) *he and his Poſterity ſhall come to enjoy theſe Kingdoms which you now poſſeſs.* And *Rodolphus* was elected King of the *Romans* by the *Germans* in 1273.

11. *Chriſtian*, an Aſtrologer of *Prague*, admoniſhed *Ladiſlaus Jagello*, then King of *Poland*, (by a Prieſt who then belong'd to the King) that he ſhould * beware of Death that Year, *viz. Anno* 1434. in which he accordingly died.

12. *Bellantius* of *Sena*, *Antonius Sirigatus*, a *Florentine*, and *Angelus de Cataſtiris*, a *Carmelite*, that they might demonſtrate the Truth of Aſtrology, (ſaith a certain Author)

* For it is believed a Perſon may by his own Induſtry prevent what from the Influence of the Stars would have been his Deſtiny, for they at moſt do not neceſſitate, but incline, and by the Providence of God and Wiſdom of Man, are ſometimes diverted.

confirm his Writ
Death, which cor
more than if all
to Anſwer him.
to delude the Ora
live but a little wl
turning Nights i
watching continu
ſtrove with Deatl
Jerome Cardan,
Aſtrologer of *Mil*
ger was ſo great a
having foretold th
ſtarv'd himſelf aw
tion, and dy'd at
lebrated by the Le
13. *Guido Bonatus*,
ly, (that City bein
a lucky Day for G
to ſally forth, rou
compleat Victory
ceiving a flight W

grand Tranſactions in the World. The Prophecy was firſt publiſhed in *Dutch*, then Paraphraſed into *Latin*, and thus *Engliſhed.*

From Chriſt's Birth count One Thouſand Years compleat,
And add Five Hundred more, with Eighty Eight;
That Year approaching, all Men will affright,
With woful Terrors which on them will light:
If the whole World to ruin do not run,
Or into Nothing, Land and Seas be done;
At leaſt, moſt Realms ſhall topſy-turvy turn,
And Men on all ſides lamentably mourn.

By the Examination of the Chronicles is found that *Poland* had that Year, *viz.* 1588. Three Kings aſſuming the Title, whilſt the Fourth *(Stephen Battori)* was yet unburied. *Swedeland* was in a Tumult, and loſt ſeveral ſtrong Places to the *Muſcovite*. The *Muſcovite* run Mad, and loſt his Wits. The King of *Denmark*, viz. *Frederick* II. died. In *France* was the Barricado of *Paris*; the King's Flight from thence; the Slaughter of the Duke of *Guiſe*, and his Brother the Cardinal of *Lorrain*; the Death of the Queen Mother; the Poyſoning of the Prince of *Conti*; the Overthrow the King of *Navarre* gave the Duke of *Mercœurs*; ſame time the Duke of *Savoy* ſurprized the *French* King's Magazine in *Saluze*; the Sophy of *Perſia* died; the *Turks* had great Defeats in *Hungary*; in *Conſtantinople*, by reaſon of falſe Money paid to the *Janizaries*, they mutiny'd, and compelled the Grand Seignior to deliver his chiefeſt Favourites to be put to Death, and ſet Fire to the *Jews* Houſes, burning above 12000 Houſes; and at Home

here

Death, and many ot
yet to come.

16. Sir *Clement Throckm*
Buckingham often bewa
he was ſtabb'd by *Felt*

See more in the Treatiſe of *Magick*, juſt after *Witchcraft*.

17. The Duke of *Guiſe*
Note was writ and la
bidding him beware
ſome eminent Danger
he neglecting to read
So *Archias*, a Tyrant i
invited to a Supper,
conſpired, received a I
of his, containing an
ſpiracy; and being
brought it to read it o
it concerned Matters
he anſwered, *That it*
Negotiate; and ſo layi
two Hours after. An
Duke of *Burgundy*, was
the Treaſon of *Campobo*

was diſcovered, and being willed to read it preſently, for that it imported him greatly, was ſo troubled with the Preſs and Importunity of Suitors, that he would not attend unto it, ſo that he was killed the ſame day in the Senate-Houſe.

And now in this Treatiſe of Aſtrology, as being a proper Place, I ſhall proceed to ſpeak ſomewhat of the

Obſervations of DAYS *Lucky and Unlucky.*

That there be good and evil Days and Times, not only Prophane Authors, but the Sacred Scripture makes mention. See 1 *Sam.* 25. 8. *Eſther* 8. 17. and 9. 19, 22. *Eccleſ.* 14. And we read the Fourteenth Day of the firſt Month was a bleſſed and memorable Day amongſt the Children of *Iſrael.* See *Exod.* 12. 18, 40, 41, 42, 51. and 13. 4. *Levit.* 23. 5. *Numb.* 28. 16. *Four hundred and thirty years being expired of their dwelling in Egypt, even the ſelf ſame day departed they thence.* As for evil Days and Times, ſee *Amos* 5. 13. and 6. 3. *Eccleſ.* 9. 12. *Pſal.* 37. 19. *Obad.* 12. *Jer.* 46. 21. and *Job* hints it in curſing his birth-day, *Cap.* 3. ver. 1. to 11.

There is to be ſeen in ſeveral *Roman* Catholick Prayer-Books, being Manuſcripts (written in Vellum, before Printing was found out, one of them as ancient as *Henry* VI. or *Edward* IV.'s Time) a Kalendar wherein were noted the unfortunate Days of each Month, in the following Verſes.

JANUARY,

Of Aſtrology.

ANUARY. *Prima dies menſis, &*
truncat ut enſis.
EBRUARY. *Quarta ſubit mortem,*
nit tertia fortem.
ARCH. *Primus mandentem, di*
Quarta bibentem.
PRIL. *Denus & undenus eſt mortis*
plenus.
AY. *Tertius Occidit, & ſeptimus o*
lidit.
NE. *Denus palleſcit, Quindenus*
neſcit.
LY. *Terdenus mactat, Julij denu*
factat.
UGUST. *Prima necat ſortem, perdit*
cunda cohortem.
EPTEMBER. *Tertia Septembris, &*
fert mala membris.

Roman Hiſtories tell us that, that very four Years the Civil Wars were begun by *pey* the Father, *Ceſar* made an end of them his Sons, *Cneus Pompeius* being then and it being alſo the laſt Battle *Ceſar* ever in; and the *Romans* accounted Fe- *ry* the 13th an unlucky Day, for on that they were overthrown by the *Gauls* at , and the *Fabij* attacking the City of the were all ſlain ſave one.

Feb. 13. unlucky to the *Romans*.

ur Hiſtorians ſay *Normandy* was conquer- rom Duke *Robert* by *Henry* I. that day 40 rs the *Normans* had won *England*.

he *Jews* accounted *Auguſt* the 10th an un- unate Day, on which day the firſt Tem- was conſumed with Fire by *Nebuchadnez-* their ſecond deſtroyed by *Titus* the Son of *eſian*. The Treaſury of the Times, ſays 8th of *Loyon* (Auguſt) the very ſame day Years one after another.

Aug. 10. unlucky to the *Jews*.

he Kalendar to *Ovid*'s *Faſtorum* ſays,

April auſpicious to the *Grecians*.

prilis erat Menſis Gracis auſpicatiſſimus.

moſt auſpicious Month to the *Grecians*.

ee *Weaver*, p. 458. the old Rhymes con- ing the *Scots*.

Erly in a Morneuing
In an evill Tyming,
Went they from Dunbarre.

Scots Rhyme.

orace, Lib. 2. Ode 13. Curſing the Tree had like to have fallen upon him, ſays,

Ille nefaſto te poſuit die.

In-

mating that it was planted in an ur
r.

The Chriſtians have a Cuſtom of obſ
ucky Days, eſpecially *Childermaſs*
Comines tells us that *Lewis* XI. wou
ate any Matter on that Day, but ac
it a ſign of great Misfortune toward
my Man communed with him abo
airs, or troubled him with any
atſoever upon this Day. Thoſe Days
Engliſh account unlucky are theſe
, *viz.* *January* the 1ſt, 2d, 4th, 5th,
h, 17th, and 19th; *February* the 8th
17th; *March* the 15th, 16th, and
il the 16th and 21ſt; *May* the 7th,
20th; *June* the 4th and 7th; *Ju*
h and 20th; *Auguſt* the 19th and

nſulſhip; alſo conquered the *Triumviri*; d likewiſe died on the ſame day. *Memoirs King* Charles I. *Heroes.*

The 6th of *January* was five times auſpici- s to *Charles* Duke of *Anjou.* *January* the 6th to the Duke of *Anjou.*

The 11th of *February* was the noted day of *izabeth*, Wife to *Henry* VII. who was born d died on that day. *Stow*, in *Anno* 1466. 03.

On *January* the 31ſt, *Henry* the Cardinal, ng of *Portugal*, was born, and 68 Years af- wards died the ſame day.

On *Auguſt* the 19th, St. *Louis* of *Sicily* was n, and died.

On *November* the 23d, *Francis*, Duke of *enburg* was born, and died.

On *June* the 11th, Sir *Kenelm Digby* was n, fought fortunately at *Scanderoon*, and ed afterwards on the ſame day.

The 24th of *February* was four times fortu- te to *Charles* V.

On *July* the 7th, Sir *Humphrey Davenport* as born, and on that day Anniverſary his ther and Mother died within a quarter of Hour one of another. *Memoirs of King* arles I. *Heroes.*

On *July* the 6th, ſix ſucceſſive principal anches of the Family of the *Trevors* have en born. Same *Memoirs.*

On the 14th of *October*, *Harold* King of *gland* was born, and was killed on the ſame y at the Battle of *Haſtings*, where our *Wil- m* the Conqueror got the Victory.

Raphael Urbin, the famous Painter of *Italy* ee in *PAINTING*) died on a *Good Friday*, hich was the day of his Birth, *Ætatis* 37. *no* 1520.

September

3d
o
ell.

September the 3d was a remarkal
Oliver, for on that day he got a
Dunbar, on that day one at *Worce*
and on that day died, *Anno* 1658.

rk-
s.rs
iſhop

Tueſday was a remarkable day of
to *Thomas Becket*, Archbiſhop of C
upon a *Tueſday* the Peers of *En*
againſt him at *Northampton*; upon
he was Baniſhed; upon a *Tueſday*
appeared to him at *Pontiniac*; upon
he returned from Exile; on a *T*
Martyred; and on *Tueſday*, 1220.
ſlated into the Number of Saints.

rtu-
Six-

Wedneſday was a fortunate day to
tus Quintus; on a *Wedneſday* he wa
that day made Monk; on the f
Chief of his Order; on that day cr
dinal; on that day elected Pope, a

City of *Tournay* was taken four ſeve-
es upon St. *Andrew*'s Day; 1. By *Hen-*
. of *England*; 2. By the Emperor *Maxi-*
. 3. By the Emperor *Charles* V. 4. By
ke of *Parma*, 1581. It ſtands in the
Netherlands.

nens, and of *Superſtitious Cuſtoms*, ſee in
atiſe of *AUGURY*.

ng ſaid thus much of the Obſervations
s, Fortunate and Unfortunate, I will
to recite ſeveral Inſtances of the ſame
es in *Men* and *Names*. And firſt of

born of low Degree, that attained to great Honours.

opus, a beautiful Woman, whilſt ſhe was Rhodopus
g, had one of her Shooes taken away
Eagle, that drop'd it at *Memphis*, in
of a great Man, named *Pſamneticus*;
iring the Shape and Work of the Shooe,
ro' all *Egypt* to find out, if poſſible, the
; which having done, he marry'd her.

rates the *Athenian*, was but the Son of Iphicrates.
r, and came to be Lieutenant-General
Xerxes, King of *Perſia*.

enes was Son of a Carter, yet was one Eumenes.
hief Captains to *Alexander* the Great.

leſian the Emperor, was Son of a Nota- Diocleſian.
Scrivener.

ntinian the Emperor, was Son of a Valentinian.
naker.

inax was but the Son of a Woodmon- Pertinax.

iminus was but the Son of a Smith, and Maximinus.
dvanced to the Dignity of Emperor on-
his high Stature, being 8 Foot 6 Inches,

and his Wife's Bracelet ſerved him for
Capitolinus.

Servius Tullius, had the Name of
from being the Son of a Bond-woman.

Tarquinius Priſcus, was Son to a p
chant, or rather a Pedlar, in *Corinth.*

Hugo, Sirnamed *Capet*, the firſt
Name, King of *France*, (from whom
ſent King thereof is deſcended) was,
write, but the Son of a Butcher in *Pa*
when *Lewis* V. Son to *Lotharius*, was
by *Blanch* his Wife for Adultery, tal
advantage of the Time (then in Co
gathered a riotous Company toget
himſelf, and got the Crown from
Charles, who was Brother to *Lothar*
Unkle to *Lewis* V.

iſlaus, King of *Bohemia*, was a poor — Primiſlaus.

vas Servant to a Prieſt of the Idols in — Chu.
yet was the firſt Emperor of the Race
nges, (the nobleſt Family *China* now
ling himſelf by the Name of *Hungus*.
ngus was a common Thief before he was — Lycungus.
or of *China*.
chilungus, a *Chineſe*, was at firſt a poor — Chunchilungus.
and afterwards made King of *Ping-*
e. Pacifier of the South, having no
n 3000 Ships belonging to him.
bocles was the Son of a Potter, yet ad- — Agathocles.
to be King of *Syracuſe*.
lonymus was but a Hireling in a Garden, — Abdelonimus.
ne to be King of *Tyre*.
Marius was firſt but a private Soldier, — Caius Marius.
ne to be ſeven times Conſul of *Rome*,
iour greater than that of Kings.
ſus, Emperor of *Rome*, had a School- — Bonoſus.
for his Father.
John XXII. was the Son of a Cur- — Pope John XXII.

rus, at firſt a Monk, came after to be — Ramirus.
f *Arragon*.
ramis was Whore to a Slave, but the — Semiramis.
eing and liking her, gave at her Re-
days Command in the Throne, who
nding preſently the King to be Behead-
gned Queen of *Egypt* many Years.
uis, or *Cinguis Chan*, was a Braſier, or — Canguis.
nith, yet came to be Law-giver to the
ns.
r, a poor Prieſt at *Caen* in *Normandy*. — Roger.
Henry, younger Brother to our King
Rufus, paſſing that way heard his
which this *Roger* ſaid ſo quick, that
Henry thought him a Prieſt fit for Sol-

diers, and therefore brought him ov
England, and recommended him to his
King *William*, who made him afterwa
ſhop of *Salisbury*, and Lord High Cl
of *England*; and this *Roger* grew ſo
built the Caſtles of *Salisbury*, *Viſes*, S
Malmsbury, and *Newark*, and yet ha
Marks in ready Money left.

and V. Pope *Nicholas* V. was the Son of a P
Sixtus V. of a Hogheard. The Conſt
nus, but a Taylor's Apprentice.

Sinan, the great Baſſa in the Court
mus I. was born of baſe Parentage; a
an Infant was laid in the Fields, wher
his Genitals bitten off by a Sow; *Sely*
ſing by, and taking notice of the extr
ry Eunuch, took the Foundling hom
Palace, and afterwards was account

'he firſt Elector of *Mentz* in *Germany*, was Son of a Carman. See in *HERALDRY*.

ranciſco Pizarro was a Baſtard, and by the : Whore, his Mother, laid in a Church- :h, from whence he was taken and laid in Fields, where for ſome Time he ſucked a . Yet afterwards grown up, he went to *rica*, conquered all *Peru*, and was by the 3 of *Spain* made Vice-Roy thereof, and 'quis of *Anatilla*. Francis Pizarro.

'he late Marſhal *Vauban*, who died in 'ce, *March* 30. 1707. firſt carried a Muſket he Regiment of *Conde*, *Anno* 1651. againſt King of *France*, 'till Cardinal *Mazarine* per- ed him into the King's Service. He was Son of *Urban le Preſte*, Lord of *Vauban*.

'eorge *Villers* was but the third Son of a ght, and being raiſed to be ſworn Servant King *James* I. came after to be Duke of *ingham*. George Villers.

r *Francis Bacon*, Lord *Verulam*. See in *iſh* Hiſtorians, in *HISTORY*. Vol. 1. p. 309.

ir *Walter Rawleigh* was born at *Budely* in *onſhire*, and having been in *Ireland*, came again, having very good Cloaths, which the beſt part of his Eſtate, (ſaith *Wanly* in Wonders) and one day walking Abroad, the Queen, (*viz.* Queen *Elizabeth*) who walking likewiſe, ſhe coming to a mar- Place, ſeemed afraid to tread there, which *Valter* ſeeing, immediately plucked off his h Cloak, and ſpread it on the Place, ſhe ng over took Notice of him, and after- ds advanced him, tho' he concluded unfor- te, being Beheaded for a Combination *France*, and other Crimes he was Inno- : of. The Fortune of which Man invites *Sir* Walter Rawleigh See more of him amongſt the Hiſtorians in *Hiſtory*, Vol. 1. p. 302. and in *Navigation*, p. 215.

Chriſtian Faith) died unnatural Death
ſuch as ſucceeded him, went moſt of
their Graves in Peace, and full of
From *Julius Cæſar* unto *Conſtantine*, are
bred about Forty Two Emperors, of wh
Julius was openly murdered in the S
Houſe.

Auguſtus was haſtened to Death by hi
Livia.

Tiberius by *Macro*.

Caligula was ſlain by *Caſſius Cherea*.

Claudius was poiſoned by *Agrippina*.

Nero and *Otho* laid violent Hands on
ſelves.

Galba and *Vitellius* were maſſacred b
Soldiers.

Domitian by *Stephanus*.

Commodus by *Lætus* and *Eleſtus*.

Pertinax and *Julianus* by the
Guards.

Caracalla by the command of *Ma*
whom the Aſtrologers foretold ſhould

lianus by *Gallus* and *Æmilianus*, and
r the Soldiers.
rianus died Priſoner in *Parthia*.
anus and *Diocleſianus* (the laſt of which
his Empire, and turned Gardiner) were
s of their own ends.
lianus was murdered by his Houſhold
ts.
enus, *Quintilius*, *Tacitus*, and *Probus*,
the Fury of the Military-Men.
Tyrant *Ariſtarchus* was made a Sacri-
the Publick Rage of the *Lacedæmoni-*

great Warring *Pyrrhus*, King of *Epire*,
in with a Tile by an old Woman at *Ar-*
oponneſiacum.
r the *Prætor* died putting on his Shoes.
us Lepidus ſtriking with his Foot againſt

Rhodian Ambaſſador having made an
n before the Senate of *Rome*.
creon drinking.
quatus eating a Cake.
linal *Colonna* eating Figs.
xis the Painter laughing at an old Wo-
e was to finiſh.
uſtus performing a Compliment.
dius the Emperor by putting a Feather
his Throat.
fair *Polycrete* with Joy, at the Peoples
ng exceſſive Thanks, having ſucceeded
Embaſſage of a diſtreſſed People be-

the Monarchs of *England*, we find theſe
eive a Fate not much differing from the
Emperors, for

Vortiger about *Anno* 464. was depoſed, tho' er reſtored.

King *Edmund* died by the Stab of a Thief, out 946.

King *Edred* was depoſed, tho' after reſto- d.

King *Edward* the younger, or Martyr, ſtab'd Horſeback by a Servant belonging to his other-in-Law.

King *Edmond Ironſide* murdered at *Oxford.*

King *Hardycnute* the *Dane* fell down dead at *Daniſh* Wedding in *Lambeth.*

King *Harold* was killed with many Wounds the Battle of *Haſtings* in *Suſſex.*

King *William Rufus* ſhot (accidentally, or emeditatedly, is not known) by Sir *Walter rrel,* ſhooting at a Deer, in *New* Foreſt.

King *Henry* II. died with Grief, at ſeeing

King *Edward* VI. died (ſuppoſed by Poiſon given by the Duke of *Northumberland)* at *Greenwich.*

King *Charles* I. beheaded on a Scaffold, an Act never parallelled, but in *Dardanus* King of *Scotland*, beheaded by his Subjects, *A. C.* 76.

King *Charles* II. depoſed, and in extream danger of his Life, tho' by great Providence preſerved.

King *James* II. died in an Exile in *France.*

But to proceed to others of leſſer Character in the World, tho' of no ſmall Note in Hiſtory.

Beliſarius, a Servant to one of the *Roman* Emperors, who had ſubdued the Goths, and ſerved his Country in great Command, was yet reduced to that Neceſſity, as to ſtand by the High-way ſide and beg; *Date Obolum Beliſario*, Give a Half-penny to *Beliſarius.*

Themiſtocles the Champion of *Greece* died an Exile in *Perſia.*

Joab, that Politick Leader, that fought the Lord's Battels, died at the Horns of the Altar.

Phocion was ſlain by the People of *Greece.* See in our Treatiſe of *Government.*

Demoſthenes laid violent Hands upon himſelf.

Pericles was many Times endangered.

Theſeus, the Founder of the famous City *Athens*, was depoſed from his Royalty, and impriſoned ſpightfully.

Ariſtides, *Alcibiades*, *Nicias*, and other famous Generals, were baniſhed Ten Years by the *Oſtraciſm*; which form of Puniſhment was ſo called, becauſe the Name of the Party baniſhed was writ on an Oyſter-ſhell, and was uſed Oſtraciſm, what.

d towards ſuch who either began t
Popular, or Potent among the N
vice.

Coriolanus the Warring *Roman* was Ex
Camillus that great Warrior likewiſ
ed to *Ardea*.

Scipio was murdered, with divers othe
Ventidius was diſgraced by *Mark A*
er divers eminent Services.

Agricola was poyſoned with the Priv
mitian.

Corbulo was murdered by the Comm
ro. All theſe ſix laſt being great
t lived in an Age wherein it was n
to be Valiant.

Gonſalvo the Great of *Spain*, after h
eſt of *Naples*, driving alſo the *Fren*
inging the *Italian* Potentates to the *Sp*

Scaffold) tho' for ſome Time a Favourite of Fortune and the Queen.

Dudley of *Northumberland* came not much ſhort of *Eſſex* in his Misfortunes.

William Duke of *Suffolk*, after 34 Years being employed in the *French* Wars, was at his return baſely made away.

Cardinal *Wolſey*, a Man that had arrived to the Pinnacle of Humane Happineſs, and Greatneſs, in *Henry* VII. and *Henry* VIII. Times, yet fell into Diſgrace, and pined himſelf to Death, not without Suſpicion of taking Poiſon.

Sir *Thomas Moor*, once Lord High Chancellor of *England*, and a great Favourite of King *Henry* VIII. yet for refuſing to take the Oath of Supremacy, and diſallowing the Marriage with Queen *Anne* of *Bulloigne*, forfeited his Head.

Sir *Francis Bacon*, Lord *Verulam*. See *Britiſh* Hiſtorians in *HISTORY*.

Sir *Walter Rawleigh*, once in Favour with his Prince, and thereby had a Commiſſion to make a Diſcovery of a Gold Mine in *America*; yet upon his return fell into Diſgrace, and loſt his Life under King *James* I.

Thus Politicians are often unfortunate to themſelves, for ſo was *Parmenio* under *Alexander*, *Sejanus* under *Tiberius*, *Cleander* under *Commodus*, *Ablavius* under *Conſtantine*, *Eutropius* under *Arcadias*, *Vignius* under *Frederick*, *Brocas* under *Philip*, *Cabreca* under *Peter*.

And now we come to our laſt Obſervations, which *Heylin* in his Deſcription of *Greece* alſo takes Notice of, *viz.* the

Fatal

Of Aſtrology.

Fatal CONTRARIETIES *in one* *ſame* NAME.

Philip, the Father of *Alexandar*, l
firſt Foundation of the *Macedonian* Mo
and *Philip* the Father of *Perſeus* ruine
Baldwin was the Name of the firſt, a
Emperor of the *Latines* in *Conſtantinople*
cerning which City, it was built by a
tine, the Son of *Helena*, a *Gregory* be
triarch, and was loſt by a *Conſtantine*,
of an *Helena*, a *Gregory* being then a
triarch.

The *Turks* have a Prophecy, that
ſtantinople was won by a *Mahomet*, ſo
be loſt by a *Mahomet*.

Auguſtus was the firſt eſtabliſhed E
of *Rome*, and *Auguſtulus* was the laſt

of Armour in his Houſe.——The Poiſon-
of *Germanicus* by the Sounding of a Trum-
of its own accord.——The like of a paint-
orſe on the Wall of the Palace of the Em-
r *Andronicus Paleologus*, about *Anno* 1300.
judged a happy Omen to that Emperor;
his Chancellor congratulated him in the
ctation of future Triumphs, yet when
vin, Emperor of the *Latins* was beaten
of *Conſtantinople* by his Father, his Horſe
ied after the ſame manner. An Owl
ching in the Senate-Houſe, was deemed
ious to *Auguſtus*.——A company of Crows
wing *Sejanus* to his Houſe with great
e and Clamour, was judged to be fatal,
ſo indeed it proved.——*Romulus* had pro-
d to him the Empire before his Brother,
ıſe he had ſeen the double Number of Vul-
.——So our *William* the Conqueror, when
rſt ſtep'd on Land, his Foot ſlipping he
down, and got ſome Dirt in his Hand,
h being judged an ill Sign, he ſaid, *No,*
e by this taken Poſſeſſion of this Land.——
a Swarm of Bees hovering over St. *Am-*
, as alſo *Plato* the Philoſopher, when In-
in their Cradles, was judged to portend
: Wiſdom ſhould flow from their Mouths.
ker in his Chronicle makes mention of the
: Tempeſt which drove King *Philip* into
nd, *Temp. Henry* VII. which blew down
Golden Eagle from the Spire of St. *Paul's*,
in the Fall, it hit upon a Sign of the Black
e in St. *Paul's* Church-Yard, *London*, and
e it down, which was adjudged ominous
ıe Imperial Houſe; and ſo it proved, for
s Arrival in *Spain*, this *Philip* ſickened and
. In an Account from *Genoa*, dated *May*
7th, 1711. and Printed in the News-Pa-
pers

th *Avi* *Auſpicium q. Aviſpicium*, was take[n] f
w oc- Flight of Birds, either on the Right I
on the Left; and hence is the Prov
Siniſtra, Good Luck, becauſe in Givin
ing, the Right Hand is oppoſite to th
ver's Left.

Feaſt *Burbury* in the Relation of a Journ
Reli- by the Lord *Howard* to *Conſtantinopl*
p. 55. at *Muſan-Baſha-Palanka*, the *Balgarian*
ſtrewed little bits of Butter and Salt
Way before him, preſaging and wiſhi
a Proſperity to their Journey and Affa
Burbury, *p.* 126.

And here it may not be improper
ſomething of the Practice and Anti
ſeveral

Superſtitious CUSTOMS *and* SAYIN *in Uſe.*

pair- The Cuſtom of pairing Nails, and

e Conjecturing on future Events by Spots r Nails, is no Modern Practice; *Cardan* ing to have diſcovered a Property in lf of finding therein ſome Signs of moſt s that ever happened unto him. The in the top of the Nails ſignify Things in the middle, Things preſent, and at ottom, Events to come: White Specks ppoſed to preſage our Felicity; blue our Misfortunes, and the like. Of Spots in our Nails.

obſerve the falling of Salt, proceeds a particular Omination among the An- , who knowing Salt was Incorruptible, it the Symbol of Friendſhip, and if it ly fell, they accounted their Amity be of no Duration. Of the falling of Salt.

e Cuſtom of giving Coral to Children, aſtening it about their Necks, thereby to heir Gums, and make an eaſier Paſſage eir Teeth, is a Practice believed to be Su- tionſly Founded, as preſumed, an Amu- Defence againſt Faſcination. For the is delivered by *Pliny*, Lib. 32. Of Coral for Childrens Teeth.

e refraining to kill Swallows, it being ned unlucky to deſtroy them, has no reaſon for its Original, than that anci- thoſe Birds were ſacred unto the *Pe-* or Houſhold Gods of the Ancients, and ore were preſerved, as alſo they were honoured for being the Nuncio's of the ; for which reaſons the *Rhodians* had a n Song to welcome in the Swallows. See . Of not killing Swallows.

e Opinion, that it is good to have a Wolf the Way, and bad to have a Hare croſs tho' it be Ancient, had no other reaſon Original, than that it may be eſteemed Of a Wolf or Hare croſſing us.

fortunate to eſcape the firſt, and a loſ
the ſecond eſcape us.

er The Cuſtom of decking Houſes with
Chriſtmaſs Time, is but becauſe Ivy wa
ently dedicated to *Bacchus* the God o
which is ſpent in no ſmall Quantity
Time.

tice The Cuſtom of breaking the Egg-ſh
the Meat is out, hath been an Ancie
ctice, and the Intent was to prevent
craft, left Witches ſhould draw o
Names therein, and thereby Miſchie
Perſons, as *Dalecampius* hath obſerved.

Lo- The making a *True Lover's Knot*,
retained in Preſents of Love, and migh
its Original from *Nodus Herculanus*,
which was called *Hercules*'s *Knot*, refe
the ſnaky Complication in the *Caduce*
Rod of *Hermes*, and in which form th

of it is as unknown, as the occaſion of a ſignifying Genius.

Of nouriſhing Hair upon Moles.

he Cuſtom of nouriſhing Hair upon the s of the Face, is the Perpetuation of a ancient Practice, and tho' now innocently may have a ſuperſtitious Original accord- o that of *Pliny* *Nævos in facie tondere oſum habent nunc.*

Of opening of a Book, &c.

e Practice we have to determine doubtful ers by the opening of a Book, and letting Staff, are ancient Fragments of *Pagan* ations.

Of the Climacterical Year.

e Cuſtom of receiving the Climacterical of 63 as a very dangerous Year, is a very t Belief; *Philo*, the *Jew*, having filled veral Pages with things relating to this ber: and *Pythagoras* and *Plato* have been Maintainers thereof in their Numerical derations. The Opinion ariſes from that , that the Days of Men are uſually caſt y Septenaries, and every Seventh Year ived to carry ſome altering Character it; as alſo the Moon (which governs Body) is ſuppoſed to be meaſur'd by s. And ſo the Number Seven and Nine, multiply'd into themſelves, do make commonly eſteemed the Great Climacte- of our Lives.

Of ſaluting People when they Sneeze.

e Cuſtom of ſaluting or bleſſing People they Sneeze, is generally believed to de- ts original from a Diſeaſe wherein ſuch ezed dy'd; and this ſeems to be proved *Carolus Sigonius*, who in his Hiſtory of makes mention of a Peſtilence in the of *Gregory* the Great, that proved perni- and deadly to thoſe that ſneez'd. Yet is an elder *Æra* for this Practice, it being on'd by *Apuleius*, who lived 300 Years

ſtom was probably the Opinion the A
held, that ſneezing was a good Sign
and therefore uſed to congratulate the o
deprecate the other by this Salutation;
of *Plutarch*, *Ariſtotle*, and others, we fi
ſneezing at certain times was held lu
others unlucky; and St. *Auſtin* teſtifies,
cients were wont to go to bed again,
ſneez'd whilſt they put on their Shooes.

Youl! Youl! In ſeveral Places, particularly on *Ma*
Worce- Hills in *Worceſterſhire*, when People fa
Corn, and want Wind, they cry Youl!
Youl! to invoke it; which Word (no
ſaith Mr. *Gadbury*, is a Corruption o
the God of the Winds. And others thi
from *Æolus* that they call the *Yule-Batch* o
maſs-Batch, the *Yule-Block* or *Youl-Block*,
Chriſtmaſs-Block, as alſo the *Yule-Gams*,
Chriſtmaſs-Games, ſo named becauſe abou
maſs time the *Eaſtern* Winds ſaid to
verned by *Æolus*, are then moſt prevale

the In *Herefordſhire*, and ſome other Co
the vulgar People at the Prime of the
do uſe to ſay it is a fine Moon God bl
which may be a blind Zeal retained fr

l fitting aſtride on a Yate or Stile, the
ht of a Moon they ſay,

il to the Moon, all Hail to thee;
ee good Moon declare to me
Night who my Husband muſt be.

ps the Original of nailing a Horſe-ſhoe Of nailing a Horſe-
hreeſhold of ſome Peoples Doors, tho' ſhooe at the Door.
tended to keep out Witches, might be
like Cuſtom practis'd in *Rutlandſhire*,
ands *Burgley*-Houſe, the ancient Seat of
ringtons near *Oakham*, a fair Market
f that County, which Lordſhip the
rrington enjoyed with this Priviledge,
any of Noble Birth came within
inct of that Lordſhip, they ſhould for-
n Homage, a Shooe from the Horſe
they rode; or elſe to redeem it with
of Money. In Witneſs whereof there
ny Horſe-ſhooes nailed upon the Shire
or, ſome being of large Size and anci-
hion, others New and of our preſent
, whoſe Names are ſtamp'd upon them;
e are ſome without any Names. That
mage was due it appears, becauſe there
uit in Law formerly commenced againſt
l of *Lincoln*, who refuſed to forfeit his
, or pay the Fine.

ne Cuſtom at Funerals in *Herefordſhire*
poor People to take on them the Sins of
eaſed, whom they termed Sin-eaters:
Practice in ſome Parts of *Lancaſhire* and
, on the Second of *November*, to ſet on
e-Board a high Heap of Soul-Cakes
o the Shew Bread in the Bible) where
Viſitant took one, and other the like
I forbear to ſpeak at large, referring

to others who have writ thereof, a
come to enumerate ſome few who have
Augury: Of which are theſe

AUTHORS.

*Amphiaraus, Tyreſias, Mopſus, A
Chalcas, Romulus.*

Of MAGICK.

MAGICK took its Original an
from the *Maguſæi*, as *Suidas*
but the receiv'd Opinion is, That it is a

who being in *Cyprus* did, in preſence
conſul *Sergius*, make *Elymas* the Sor-
his Sight.

the *Theurgick*, or *White Magick*, by Theurgick.
ance of an Angel, which upon account
ion, enjoyns Faſting, Abſtinencies,
rity, *&c.* that the Soul deſirous of
e with the ſuperior Deities, may not
y thing diverted by its polluted or
dy.

Geotick, by the Aſſiſtance of a Geotick.

ural Magick, by their own Induſtry Natural Magick.
ty, which arrives to that degree, they
luce in *March* ripe Roſes, Figs, *&c.* See the Treatiſe of *Vegetables* and *Agriculture. V.* 2. *p.* 13.
g Effects before the Time ordain'd by
and will cauſe Thunder, Lightning,
Winds, Animals of divers Sorts, and
Tranſmutations and Transfigurations
Beings, ſuch as *Roger Bacon*, and
e ſaid to have done by pure *Natural*

eremonial Parts of *Magick* is Conjuring Ceremonial Parts of Magick.
romancy, whereby Men invoke the The Rules of Necromancy aver a Soul may be raiſed up, if within a compleat Year, after its departure from the Body.
dead Bodies, and inchant Children,
y about them certain Pocket *Dæmons*,
irits nouriſhed in Glaſſes, by which
etel and pretend to Prophecy, and
ir time in Incantations, Charms, Phil-
. to the Prejudice of People. As we
t *Duffus*, King of Scots, was roaſted
gentle Heat, only by means of theſe
ns laying an Image of Wax before
; and the ſame they can do by Cold,
ng the Abſent with grievous Pains.
PHILOSOPHY, *pag.* 13. and in
NOLOGY, *p.* 230. and in *AUGURY*,
. At the Coronation of King *Richard* I.

n of *England*, *Jews* and Women were
e approach (by reaſon Inchantments
he mon) to prevent their Faſcinations
es. may read in the *Engliſh* Chronicles.

Paracelſus tells us, that pronou
Words, *Oſy*, *Oſya*, will make Serp
their Motion and lie ſtill as if they
Note alſo, in *pag.* 22. in the Treatiſ
GETABLES and *AGRICULT*

Witchcraft, is a ſort of Natural
which is much the ſame as the former
they will by giving Travellers or oth
", of enchanting Medicament in Chee
like, turn them into Cattel, making
ry what Burthens they think fit, e'
ſtore them again to their former Sha
a thing happen'd as St. *Auſtin* affir

omancy, is a Divination by Water.
omancy, is a Divination by calling up its. See before: And in *CHRO-OGY*, *Vol.* 1. *p.* 230. and in the Trea- *DREAMS*, at the End.
ry, is a Divination by caſting of Lots.
edium, is a Divination by Crums caſt hickens. See before in *AUGURY*, 3.
nancy, is a Divination by Arrows.
tancy, is a Divination by Shadows.
omancy, is a Divination by Smoak.
nomancy, is a Divination by a Sieve.
ocritica, is a Divination by Dreams. Treatiſe of *DREAMS*.
Practice we have to determine doubtful s, by the opening of a Book, and letting Staff, are ancient Fragments of *Pagan* ions.
onicus Comnenius, a cruel Tyrant, and or of *Conſtantinople*, being put into fear ſpiracies, conſulted with one *Sethus*, a an, who divined by a Baſon of Water; *dronicus* deſiring one day to know the of his Succeſſor, *Sethus* ſhewed him in ter the Two Letters, *J. S.* whereby he ured one *Iſacius* (who had then rebell'd him in the Iſle of *Cyprus*) ſhould be 1. Nevertheleſs, there being another of ame in the Court (a Man of ſo quiet a *Andronicus* himſelf did not ſuſpect him) nſellors adviſed him to put him in Pri- hich being attempted by *Stephanus* and *Iſacius* killed him, and took Sanctuary, he People flocking, choſe him Emperor, e did not expect to ſave his Life.

When

accordingly; but in another manner, th
being ſent Priſoner to *Paris*.

Alexander, King of *Epyre*, having
ſtood by an Oracle of *Jupiter*, that h
die near to the River *Acheruſia*, and
Pandoſia (of which Names there was
and River in *Epyrus*) thought to avoid t
by leaving his Country, and maki
abroad in *Italy*, where he was ſlain
a River and City ſo called. *Juſtin. L*

The Emperor *Valens*, having conſult
Necromancers concerning the Name of
ceſſor, and being told it ſhould beg
Theod. he cauſed many of the Name
odotus, *Theodolus*, *Theodorus* and *T*
to be made away, and amongſt others
ant Captain *Theodoſius*, when he had re
Africk from his Enemies, and gave O
kill *Theodoſius* his Son, whom God d
from the Danger, and was afterwa
peror. *Pau. Diac. Lib.* 12.

Mackbeth, King of *Scotland*, conſultin
ceresſ, was aſſured no Man born of a

ıo had been cut out of his Mother's Belly. *ector Boetius, Lib.* 12.

Nathalocus, King of *Scotland*, ſent a great vourite of his to enquire of a famous Witch, ıat ſhould be the Succeſs of a War then in nd, and other things concerning his Perſon d State? She anſwer'd, *Nathalocus* ſhould be lled by the Meſſenger himſelf, who, tho' he parted from her with great Diſdain and Re- lings, proteſting he would rather ſuffer 10000 eaths; yet reflecting on the Matter in his turn, and thinking the King might come to iow of the Witches Anſwer, and hold him er after ſuſpected, he killed *Nathalocus*, *Hector et. Lib.* 12.

See more in *Aſtrology, p.* 298.

King *Hen.* IV. of *England*, in *Anno* 1413. ıs preparing for a Journey to *Jeruſalem*; t being taken with an Apoplexy when at ayers at St. *Edward's Shrine*, he was removed the Abbot of *Weſtminſter*'s Houſe, where re- vering his Senſes, and aſking where he was, y anſwered him in the Abbot's Houſe, in a amber called *Jeruſalem*. Well, then ſaid King, *Lord have Mercy on me!* for this is *Jeruſalem*, where a Southſayer told me, I ould dye; and ſo he did, being 20 *March*, 13. See the *Chronicles*.

Edw. IV. King of *England*, being foretold, as ſuppoſed, one, whoſe Name began with a G. ould procure the Deſtruction of his Children ter his Death, cauſed his Brother *George*, ıke of *Clarence*, to be murder'd in the *Tower*, t ſuſpecting any thing of his Brother the ıke of *Glouceſter*; who fulfill'd the Propheſy o fatally. *Pol. Lib.* 24.

King *Hen.* V. at the Birth of his Son *Henry* fter King *Hen.* VI.) in a Prophetick Rap- re cry'd out, *Good God!* I, Henry *of* Mon- mouth,

again.

The People of *Rome* were not ſuff
know the right Name of their City, le
covered to their Enemies their Patron
might be called forth by Charms and
tions. For the Tradition of Magic
That titulary Spirits will not remove
mon Appellations, but at the proper N
Things to which they are Protectors.

Of *Mathematical Magick*, you may
form your ſelf if you read the Artifi
rities of ſeveral rare Artiſts, mentione
in the Treatiſe of *GEOMETRY*, be
p. 157. as alſo hereafter, in the latter
this Treatiſe, where you will find ſeve
Inquiries into hidden Things; who,
the help of Natural Virtues and E
confidently undertook only by Mathe
Learning, and the help of Celeſtial In
to produce many miraculous Works, a
ing and ſpeaking Bodies, which notwi
ing are not the real Animal. Some Cu
and Paradoxes of which Art I will

Of ORACLES.

moſt famous Oracles of the Heathens

f *Apollo* at *Delphos*, where an old Wo-
ıſwered in *Greek* Verſe, there was a
s Temple or Fabrick enrich'd with innu-
ɜ Gifts; in the midſt of this Temple,
vas a very deep Vault made by an
ſ of the Earth, which Cavity was kept
l for the moſt part, but it was diſco-
when the Anſwer was to be given; and
ɔon they ſet a Tripos or Trevet (a little
ſupported with three Feet, called alſo
ı, becauſe it was covered with the Skin
Serpent *Python*) upon which the Pro-
(named *Phœbus*, otherwiſe *Pythia*, or
iſſa, and by the *Greeks* called *Engaſtro-*
ſignifying one that ſpeaketh in the Belly)
ır ſome Ceremonies, and remained diſco-
ſuddainly a ſharp violent Wind horri-
ıing from out the Cave ſeiz'd this Pro-
; which became furious and wholly
d, ſometimes as if half Dead ſhe pro-
ɔd her Anſwers, which were for the moſt
ı *Greek* Verſes, but ambiguous and very
ıs. This done, the wicked Spirit retired
f, and the Propheteſs recovered her Spi-
d became ſtayed and ſtill. Here *Cræſus*
ɔing, received for Anſwer the doubtful
of the Devil, in a Form of Words ſo
ıgly contriv'd, that the Truth was then
ɔt of, when he thought to have gain'd
ɔ.

So the Serpent told *Eve*, You ſhall be as God, knowing Good and Evil, *i. e.* They ſhould have Knowledge of their Good loſt, and Experience of their Evil found.

ɔ *Halyn penetrans magnam pervertit opum*

When

When Cræſus *over* Halis *roweth,*
A mighty Nation he overthroweth.

Which he interpreting according to hi
hopes, croſſed the River; but was vanq
himſelf by *Cyrus*, King of *Perſia*, and hi
Nation or Country ruined.

King *Pyrrhus* before his War with t
mans, having alſo recourſe to this Orac
ceived for Anſwer,

Aio te Æacide Romanos vincere poſſe.

Which doubtful Prediction he conſtrue
poſſe vincere Romanos, Thou ſhalt overco
Romans; but afterwards found the
meant, *Romanos poſſe vincere te*, That t

ar by ſubduing them both. The Spoil the *ocians* got out of the Temple was 60 Tuns Gold.

2. The ſecond famous Oracle was of *Jupiter* *mmon*, or *Hammon* in *Cyrene*, on the Confines *Egypt*, in ſtrange and hideous Deſarts; and the midſt of a Wood, properly fitted with untains, ſtood the Temple where the Idol *Jupiter* was, having the Head of a Buck, d covered with a Skin of the ſame. The ieſts intending to know any Thing, ſet their ol in a Boat, and ſhook it, ſinging ſome ng according to their own Jiggiſh manner. ien the Idol made Signs, and Nodded, which e Pontifex, or Chief Prieſt interpreted and lated to the Perſon who came unto the Ora-

Of Jupiter Ammon, &c.

Cambyſes and *Alexander* the Great, went to is Oracle to know of their Adventures; hich laſt conſulting this God, was ridicuſly told he was a God himſelf. *Pliny* in his cond Book ſuppoſeth that this Name *Ammon* as given to the Oracle by reaſon of the ndy Deſarts where the Temple ſtood. *Feſtus mpeius* ſaith the ſame, *Lib.* 8. See more am- e Diſcourſes hereupon in *Giraldus*, in the cond Commentary of his Hiſtory of the ods.

3. Another famous Oracle was the Temple *Dodona*, (a City ſince called by the Name *Epire*) where *Jupiter* anſwered, ſtriking the ldrons of Braſs with a Silver Wand, which the compaſs of certain Strokes, gave An- er in Articulate Sounds of Things to come, ſilly Superſtitious People, which reſorted thi- r from all Parts. And near this Temple was oreſt of Speaking Firr-Trees, which imme- tely, as ſoon as any Man came to demand a Que-

Of Dodona.

a Queſtion, moved themſelves and ut
Intelligible Anſwer; there were alſ
Foreſt two Speaking Pidgeons.

An- There were other Oracles, as that o
neſte, 5. *Antium*, 6. *Lebadia*, 7. *Mopſu*
philocus, 9. The *Syrian* Goddeſs at *Hie*

ered Satan uſed the like deceitful Juggli
Oracle of Dreams at *Nabarea* in *Pe*
other Supernatural Dreams ſent from
vil; for there were Gods that did a
their Worſhippers in Dreams, as *Mor*
God of Dreams, and *Amphiorаus* in
as alſo *Faunus* was adored amongſt th
in *Italy*, who in a Viſion by Night w
to give Anſwers unto thoſe that aſk
by reaſon whereof ſince that Time, t
where ſuch Oracles were delivered we

ıoſtles, as *Joel* had foretold in his Second apter, and St. *Paul* expounded in the Se- ıd of the *Acts*. This Practice was of late ·ived in the *French* Prophets, who made ir Appearance in *London*, *Anno* 1710. And : word *Fanatick*, derived as before, hath been plied to the Sectaries of this Kingdom, eſpe- lly ſince the Time of King *Charles* I.

As to thoſe who confided in theſe Oracles Dreams, they found the like Deluſions with ıſe before mentioned; for *Cæſar* dreaming that committed Inceſt with his Mother, made nſelf Lord of *Rome*, which was his Country l Mother; and *Hippias*, the Son of *Piſiſtratus*, : Tyrant of *Athens*, having upon the like ɔjects the ſame Dream, was killed and ried in the Bowels of his Mother, the rth, (as *Heylin* in his Geography, *p.* 399. ·erves.) So that had *Cæſar* miſcarried in Action, and *Hippias* thrived, yet ſtill had : Devil been reputed his Crafts Maſter, l the Father of Truths. For particular l remarkable Dreams, with the Cauſes ·reof, ſee in the Treatiſe of *DREAMS*.

Of Satanical Extaſies, and the Principal Sorts Divinations, ſee the *Theomancy* of *G. Peucer*, b. 4. See alſo *Plutarch de Orac.* &c. And,

The *Grecians* (as *Plutarch* ſaith) were ıſt beſotted on theſe Impoſtures of Sa- ı, whoſe dark and fallacious Riddles are ·ntiful in moſt Hiſtorians and Poets be- e the Advent of Chriſt, at which time acles grew Mute, tho' they did not ut- ly ceaſe, ſome continuing to the Reign of *lian*, who conſulting with the Devil, was ld, that he could receive no Anſwer, be- ıſe the Body of *Babilas* the Martyr was tombed nigh his Temple.

For the better Diſcovery of ſome Crafts and Frauds of the Magicians, Miracles, we may Note, that

de- There are Three ways by which S
falſe ludes Men with falſe Miracles; 1. I Motion, ſuddenly removing one Ob the Eye, and ſubſtituting inſtead the ther. Thus we are deceived in many Transformations, as when we thinl Women transformed into Cats; or I any other Creatures; the Woman is ſ conveyed away, and the Cat put in h

on of ſuch were thoſe Tranſmutations of
ows Fellows into Beaſts, and of *Diomedes*'s
. ny into Birds. 2. By darkning the or Air, that we cannot ſee the Obje condenſing it ſo, that the Object appea ger than it is; or by altering of i

he reſemblance of *Samuel*; whereas it in the Power of Satan, to diſturb the any juſt Man, and to take it from that id Happineſs where it is under the im- Protection of the Almighty; yet many Men are of Opinion, that *Samuel* did ppear, God ſo permitting, that *Saul* e convinc'd of his Wickedneſs and De- rom God, by the ſame Prophet, whoſe he had heretofore deſpiſed. See more End of the Treatiſe of *DREAMS*.

Opinion about *Samuel*'s Apparition.

ıo' Satan deludes oftentimes with falſe s, yet it is not to be denied but that ıes by God's Permiſſion, he doth ſtrange s by the help of Natural Cauſes; as he e Storms, ſo he did againſt *Job*'s Chil- ıe can carry his Witches in the Air, ſo :arry Chriſt to the Pinacle of the Tem- l thence to an high Mountain; ſo the :arried *Habakkuk*. He can alſo make :o ſpeak by guiding their Tongues, ſo ;el made *Balaam*'s Aſs to utter certain but he can do no Miracle, that is, he produce ſuch Effects as exceed the y of Natural Cauſes; ſo he cannot raiſe d, or give them Life again; he cannot Sight to the Blind when there is a total ɔn; nor can he transform Men into being the Body of a Beaſt is not capable Iumane Soul; nor can the Soul of Man : a Beaſt's Body, there being no rela- tween the Matter and Form; nor is ıy Diſpoſition, Appetite or Aptitude in ıtter to receive ſuch a Form, eſpecially therein. This is the only Work of God, anged *Lot*'s Wife into a Pillar of Salt, *buchadnezzar* into a Beaſt. Satan hath 'er over Celeſtial Bodies, tho' he be the

The Power of Satan.

Miracle, properly what it is, and what is not a Miracle.

Men may be changed in their Form like to Beaſts, as appears before.

Prince of the Air; he cannot create nor
things which God hath reſerved for
Therefore when we hear of Men tra
into Beaſts, or raiſed from the Dead,
like Miracles as exceed the Courſe and
of Nature, we may be aſſured theſe
true Miracles, but ſatanical Deluſions
ally if they be done to confirm Error,
neſs, and Superſtition; for the end o
and divine Miracles, are to eſtabliſh T
Holineſs. Therefore, when we read
ing down the Moon, of driving the St
wards, and ſuch like Impoſſibilities
among the *Gentiles*, we may concl
were meer Deluſions of Satan. St
thoſe Wonders aſcribed to *Simon M*
turning Stones into Bread, of being tra
into a Sheep, Goat, and Serpent, of rai

rit or Spectre. Beſides the implacable ha-
l of Satan againſt Mankind, the delight he
:eth in affrighting and hurting us either in
· Perſons or in our Eſtates, that irreconcile-
e Enmity which is between the Serpent and
: Woman's Seed, is a great Cauſe of this
ır in us.

Laſtly, We are naturally fearful in the Dark,
auſe our Imagination worketh upon it ſelf,
ving no outward Object to divert it. Hence
:an, who is the Prince of Darkneſs, uſeth
: Opportunity of the Night to hurt or delude
; thus he affrighteth us in the Dark, in our
uſes, with ſtrange Apparitions, Motions and Apparitions in Houſes.
nds. So in the Night he affrighteth Tra-
lers with *Ignis Fatuus*, or Jack in the Candle; To Travellers.
ich tho' it be a Natural Meteor (ſee in
ETEORS hereafter) yet Satan can make uſe
it and move it to and fro purpoſely to draw
avellers into Precipices and Waters. So in the To Mariners.
ght time he affrighteth Mariners at Sea by
inuating himſelf into thoſe fiery Meteors,
ich, like Candles or Balls of Fire, run up
d down the Ship: Theſe were deified by the
l Pagans. If one ſingle Flame appeared, *Helena* a Meteor.
:y called it *Helena*; and held it an ominous
gn of Deſtruction, as ſhe was to *Troy*. If
:re were Two, they named them *Caſtor* and
llux, and placed their Statues in their Ships; *Caſtor* and *Pollux*.
we read, *Acts* 28. And Seamen uſually
l us of many ſtrange Sights and Apparitions
:y have ſeen on the Ocean. Satan alſo uſeth
affright Men in Churches and Church-yards
the Dark, by repreſenting to their Phantaſy
e Shape of Dead Men in their Winding Sheets.
· the Night alſo ſtrange Voices and Sounds
e heard, near deep Waters or Rivers, which
e taken as Preſages of ſome unhappy Acci-
nt to happen there to ſome one; for ſo *Roſs*,

in his *View of Religions* (from whence
ſent Diſcourſe is taken) tells us, He on
himſelf, and found the Event to fall
cordingly. It is ſtrange what *Plutarch*
of the Voice which from the Shore call
Thamus, the *Egyptian* Ship-maſter (
then caſt Anchor at *Praxea*) telli
That the Great God *Pan* was dead.
Night-Mare, which is ſometimes called
and *Succubus*, be a Natural Diſeaſe a
cians know, yet it is not doubted but *S.*
oftentimes made uſe of this Infirmity
the Bodies of Men and Women in their

He alſo deludeth us by Philters, L
Charms, ungrounded Amulets, Cha
and many ſuperſtitious ways in the
common Diſeaſes. For whether he
by Cauſes which have relation or no
the Effect, he maketh it out by ſecret

ieed we not believe, that by their proper lties, they produced theſe Effects; and y of more than Natural Activity was his ıſel unto *Democritus*, when, for the Fal- Sickneſs, he commended the Maggot in ats Head. Nor can it be naturally made what is delivered of *Tobias*; that by the e of a Fiſh's Liver, he put to flight *Aſmo-* and *Veſpaſian*; by the Touch of his Foot red a Lame Man; and by the Stroak of land another that was Blind. See more ıis in Dr. *Brown's Vulgar Errors*, p. 48, 49. e read that *Sigebert* I. King of *Auſtraſia*, of *Lotharius* VII. defeated the *Lombards*, ', *Avari* and *Eruli*, who invaded him; but *rench* being affrighted by the Spectres rai- ıy theſe Magical Barbarians, betook them- s to flight, whereupon he was obliged to a e. See more at the End of the Treatiſe of E *AMS*.

. *Morocco*, in *Barbary*, is a ſtately Moſque a very high Turret, on whoſe Top are Apples of Gold, weighing together 700 ıds Weight, ſo fixed by Magick they can- ɔe taken away, tho' attempted divers times ündry Princes; who ſtill deſiſted on ſome ıge Accident befalling them. They are :h 200000 Ducats. See *Morden* 474. *Gor-* 318. *Heylin* 713.

U THORS who have wrote of *Magick*.

ɔroaſtes. *Hermes*. *Evantes*, King of the *hians*. *Zachary*, of *Babylon*. *Joſeph* the . *Boccus*. *Almadel*. *Ptolemy*. *Alcmeon*. *lonius*. *Tryphon*. *Albertus*. *Arnoldus de Nova*. *Raymund Lully*. *Bacon*. *Aponus*, *Glanville* on *Witchcraft*. *G. Peucer*.

Of Mathematical Magick.

THE Term is of an ancient ſtanding, one reaſon being in alluſion to vulgar Opinion, ich doth commonly attribute all ſtrange Ope-ions unto the Power of Magick. The Effects which Art ſee before, *p.* 157, *&c.*

All the Magnificent Works of the Ancients, ntion'd in *GEOMETRY*, *ARCHITEC-URE*, and in the Treatiſe of *RARITIES*, are hardly conſiderable in reſpect of Art ompared with the famous Speeches and Acts *Archimedes*, who was wont to ſay, He could ve, *datum pondus cum datâ potentia*, the great-conceivable Weight with the leaſt conceivable wer; and that, if he did but know where ſtand and faſten his Inſtrument, he could

Where ſuppoſe the Globe *A*, to contain 24000000000000000000000000 Pounds Weight (allowing 100 Pound for each Cubical Foot in it as *Stevinius* hath calculated); yet a Man at *D*, may be able to outweigh or move it. Of forcible Strength.

So the Force that may be uſed by Multiplication of ſeveral Wheels together, with Nuts belonging unto them, may be eaſily experimented in ordinary Jacks uſed for roaſting Meat, which commonly conſiſt but of three Wheels; yet can a Child pull up a good conſiderable Weight thereby, and by the adding a few more Wheels, a Man tied in the Place of the Weight, might by a ſingle Hair faſtened to the Fly or Balance of the Jack be drawn up from the Ground, as is explain'd with a Figure in Biſhop *Wilkin*'s Diſcourſe of *Mechanical Powers*, p. 88. And the Force of this and the like Faculties may be conceived by the Vulgar in the Uſe of that Inſtrument called a Betty; which Thieves and Robbers uſe for breaking or wrenching open the ſtrongeſt Doors, *&c.*

By this means might the ſtrongeſt Oaks be pull'd up by the Roots and the like, as *Archimides*, with an Engine of Pulleys (to which he only applied his Left-hand) lifted up 5000 (ſome write 7000) Buſſels of Corn at once, and drew a Ship with all its Lading upon dry Land. 'Tis ſaid *Sampſon* could carry the Gates of a City upon his Shoulders, and that the ſtrongeſt Bonds were unto him but as Flax burnt with Fire; and yet his Hair being ſhaved off, all his Strength departed from him. *Milo* could carry an Oxe upon his Back (by having lifted it every day whilſt it was a Calf and grew up) and yet, when he tryed to tear an Oak aſunder, that was ſomewhat riven before, having drawn it to its utmoſt, it ſuddenly joined

ned together again catching his Ha
Cleft, and ſo ſtrongly manacled hi
became a Prey to the Wild Beaſt
w by theſe Mechanical Contrivances,
y to have made one of *Sampſon*'s Ha
s ſhaved off, to have been of more
n all of them when they were on.
help of theſe Arts, it is poſſible
an to lift up the greateſt Oak by th
th a Straw, to pull it up with a H
en blow it up with his Breath, as th
d Author plainly demonſtrates and ſh
Figure of an Engine in *p.* 98.
th, ſuppoſe the Roots of an Oak to
oo Foot Square (which is almoſt a
a Mile) and 40 Foot deep, each
ot being 100 Pound Weight; which
much beyond the Extenſion of any
Weight of Earth, the Compaſs of th

y-man *J. Dee*, that he and *Cardan*, being gether in their Travels, they did ſee an In-ument (which was at firſt ſold for 20 Ta-nts of Gold) wherein there was one Wheel hich conſtantly moving round amongſt the ſt, did not finiſh one Revolution under the ace of 7000 Years. But our Author, *p.* 113. t only mentions but explains the ſlowneſs of Motion which could not paſs an Inch in a illion of Years; and that tho' there could t be one Minute of Time, wherein it did t rid ſome Space (ſaith our Author, but ſure may be rather termed ſome Inclination to otion) and paſs on further, yet this Body in any Years together ſhould not move ſo far as Hair's Breadth. So full is Art of rare and credible Subtleties, yet ſince it is a Natural rinciple that there can be no Penetration of odies, and ſince it is ſuppoſed that each of e Parts in the Engine, do touch one another their Superficies, it neceſſarily follows that e Weight doth begin to move with the wer, however inſenſible it ſeems to us.

It may be conceivable by the foregoing De- Of ſwiftneſs of Motion.
ription of ſlowneſs of Motion, to find out In-entions for any kind of ſwiftneſs, and any ind of force thereby, as is experienced in the rce of throwing a Stone with the Hand, and e caſting it with a Sling, the end of which is rther from the Shoulder Joint (which is the enter of Motion) than the Hand. *David*'s ictory over *Goliah*, may ſufficiently evidence e Force of theſe; and *Vegetius* (*Lipſius Po-r. Lib.* 4. *Dialogue* 2.) relates it was uſual is way to ſtrike a Man dead, and beat the ul out of his Body without ſo much as break-g his Armour or fetching Blood. We read f 700 *Benjamites* Left-handed that could ſling *Judges* 20. 16.

a

a Stone at a Hair's Breadth, and n
And a whole Nation of *Indians* were f
Excellency in this Art ſtiled *Baleares*
were ſo ſtrict in teaching this Art un
young ones, that the Mother would
any Meat to her Child till (being ſet
diſtance) he could hit it with ſlingi
Archery, in the Treatiſe of *GAMES*
p. 108. Swiftneſs of Motion appear
much in the Engines of War uſed by
cients, and eſpecially thoſe invented b
medes; the Actions of which famous
are largely ſet down by *Polybius*, in his
Lib. 4. *Tzetzes Hiſtor. Chiliad* 2. *H*
Proclus, *Lib.* 2. *c.* 3. *Plutarch*, *Livy*,
vers others. As when the *Roman* For
the Conduct of *Marcellus*, had laid Sie
the famous City of *Syracuſe*, the Art
one Mathematician beat them back,

greater Miſchief.——— Of the Engines uſed by the *Romans*, and divided into two ſorts ſtiled *Baliſtæ* and *Catapulta*, both which Names are ſometimes uſed promiſcuouſly; but according to their Propriety, *Baliſta* ſignifies an Engine for the ſhooting of Stones, and *Catapulta* for Darts or Arrows. See the *Æolii Sclope* in *GEOMETRY*, *p.* 163. See the *Battering Ram* in *MILITARY ART*, *pag.* 220. The Type of one of theſe *Balliſtæ* and *Catapulta*, ſee in Biſhop *Wilkin*'s *Archimides*, or *Mechanical Powers*, p. 128. and 132. See the Example of an incredible Swiftneſs of Motion explain'd in his Figure, *p.* 143.

Of ſailing Chariots.

The Force of Wind in the Motion of Sails may be applied to the driving of a Chariot by which a Man may Sail on the Land as well as by a Ship on the Water; and ſuch Chariots are commonly uſed in the Champaign Plains of *China*. *Boterus de incremento Urbium*, *Lib.* 1. *c.* 10. mentions that they have been tryed alſo in *Spain*, tho' with what Succeſs he doth not ſpecify. *Grotius* is very copious and elegant in the Celebrating of this Invention in divers Epigrams. And at *Schevelling* in *Holland* was a Chariot made by the Direction of *Stephanus*; which *Walchius* treats of in *Fabularum decas*, *Fab.* 9. And *Peireskius* travelled thither to Experience. Biſhop *Wilkins* ſhews the Form of one, *p.* 158. and of its Swiftneſs in Motion. See in the Treatiſe of *GEOMETRY*, *p.* 157.

Merſenus doth, in his Tract *de Magnetis proprietatibus*, Comment or Deſcant upon making of a Ship for Submarine Navigations, wherein Men may ſafely ſwim under Water, which Biſhop *Wilkins* ſaith is feaſible, having been experimented here in *England* by *Cornelius Drebble*; but how to improve it unto publick Uſe and Advantage, ſo as to be ſerviceable for re-

Of Ships for ſwimming under Water.

mote

mote Voyages is the point. In which, one
conſiderable, is the letting out or receivi
any thing as there ſhall be occaſion withou
Admiſſion of Water, which might be
ſaith this Author, by making certain Le
Bags of ſeveral Bigneſſes, which for the
ter of them ſhould be both tractable fo
Uſe and Managing of them, and ſtron
keep out the Water; for the Figure of
being long and open at both Ends, anſwe
to theſe, let there be divers Windows or
Places in the Frame of the Ship round
Sides, to which one End of theſe Bags migh
fixed, the other End coming within the
being to open and ſhut as a Purſe. No
we ſuppoſe this Bag thus faſtned to be
cloſe about towards the Window, then
thing that is to be ſent out may be ſafely

arine Navigation, they would want the uſual dvantages of Winds and Tides for Motion, well as the Sight of the Heavens for Direion. And theſe with many other Difficulties Air and Fire, *&c.* our Author Anſwers with robable Remedies, as you may ſee in his *Dædalus*, or *Mechanical Motions*.

Before I conclude this Treatiſe, I am willing add one Paradox more from the aforeſaid enious Author concerning the Art of Flying the Air; which hath been or may be atpted (to omit by Spirits or Angels as menned in Scripture) by the Help of Fowls, or Wings faſtned immediately to the Body: laſtly, by a Flying Chariot. Of the Firſt, ey muſt be ſuppoſed to be great Fowl of a ong laſting Flight, and eaſily tameable, diſs of which may be ſo brought up, as to rn together in carrying the Weight of a an, ſo as each ſhall partake his proportionle Share of the Burthen; and the Perſon that carried may by certain Reins direct and ſteer em in their Courſes, and more improbable cts have been practis'd into brutiſh Creatures, the Dancing of Dogs and Horſes in our ime; of which latter was to be ſeen a Horſe, hich receiving ſeveral Pieces of Money (beg blinded with a Cloath) from ſeveral Speators, hath with a Scrape of his Foot denoted each ſeveral Perſon his Piece again. Of e Second way by faſtening Wings to the dy, which *Fredericus Hermanus*, in his Diſurſe *de Arte volandi*, doth only mention and ſiſt upon. 'Tis related of a certain *Engliſh* onk called *Elmerus*, about *Edward* the Conſor's Time, that did by ſuch Wings fly from Tower above a Furlong. And ſo another m St. *Mark*'s Steeple in *Venice*. Another at

Of the Art of Flying in the Air.

Marcus Polus *ſaith, The Rucks of Madagaſcar have Wings, whoſe Feathers are* 12 *Paces or* 60 *Foot long. Blackbirds, Nightingals, &c. do fly from us into Germany. And Mariners have found Fowl above* 600 *Miles from any Land.*

Ernestus Burgravius, in Panoplia Phyſico-Vulcania, Sturmius in Lat. Lingua Reſtitut.

No-

Noremberg. And *Busbequius* ſpeaks o
in *Conſtantinople*, who attempted ſomet
way. *Burton*, in his *Melancholy*, *Par.*
Mem. 3. mentioning this Quotation,
lieve that ſome new fangled Wit ('ti
nical Phraſe) will ſometime or other
this Art. Tho' 'tis true moſt of thoſ
did unfortunately miſcarry by fallin
and breaking their Arms or Legs, yet t
be imputed to their want of Experie
too much Fear, which muſt needs poſſ
in ſuch dangerous and ſtrange Attempts.
things that ſeem very difficult and fe
the firſt, may grow very facile after
Tryal and Exerciſe. And therefore
would effect any thing in this kind, ſh
brought up to the conſtant Practice of
his Youth. Trying firſt only to uſe h
in running on the Ground as an O

o ſhoot exactly at a Mark, the Horſe
mitting his Courſe. Theſe things may
poſſible to others; and it would be
ngerous for any one to attempt them
h not firſt gradually attained to theſe
long Practice and Tryal. And be-
Arms extended are but weak and ea-
ried, it is worth enquiry whither this
ot be more probably effected by the
of the Feet, which are naturally more
and indefatigable. In which Contri-
he Wings ſhould come down from the
s, on each ſide, as in the other; but
on of them ſhould be from the Legs,
ruſt out and drawn in again one after
ſo as each Leg ſhould move both
by which means a Man ſhould (as it
valk or climb up in the Air, and then
ds and Arms might be at leiſure to
d direct the Motion. As to the laſt
ance, by a Flying Chariot, I refer you
uthor's Treatiſe of *MECHANICAL*
ONS, where is a Reſolution of the
ief Difficulties that ſeem to oppoſe the
y of a Flying Chariot, it being too
a Particular to recite here. And

are ſome who have invented Ways to
on the Water as regularly and firmly
the Land. There are ſome ſo accu-
o this Element, that it hath been al-
Natural to them, as to the Fiſh; and
that ſome Men could remain for above
together under Water.
nus mentions one who could Swim
co Miles together from one Shore to
with great Speed, and at all Times of
. And it is ſtoried of a certain young

his Cuſtom was to Swim to them f
which kind of Life he continued t
an old Man and Dyed.

Theſe things I mention (ſaith my
to ſhew the great Power of Practic
ſtom, which might more probably
this Experiment of Flying (if it
regularly attempted) than in ſuc
Effects as theſe.

But enough of this: And for an
ſeveral rare Pieces of Workmanſhi
Art which dares contend with Nat
in ſeeming to infuſe Life into
Stone, &c. See the *Artificial Rarit*
oned in the Treatiſe of *GEOM*
p. 157.

# of CHIROMANCY:
OR,
PALMISTRY.

THIS Art *Pythagoras* made uſe of, making Conjectures upon Children, and as he judged incapable of Learning he d not receive into his School, alluding ips to that of *Job*, *God imprinted or put* The Line of Life. *e hands of Men, that ſo every one might* See p. 209. *his Works.* That there is any Certainty is Art, is utterly denied by many, who it a Vanity to believe that the Seven Pla- predominate over the Seven Mountains, rt placeth in the Palm of a Man's Hand, at the Lines therein ſhould have any Do- of Community with the length of Life, at Riches, Accidents, or other Events, be judged off thereby. This Art how- honoured with many Ancient, and ſome urable Profeſſors (amongſt whom *Cæſar* d to be one) yet now is grown ſo un- ry as to be only practiced by Gypſies, Vagabond People, the better Sort, thro' nderſtanding of its Vanity, and Profane having wholly deſerted it, and left it its Errors, Evils, and Superſtitions, to old Women and Beggars; wherefore I deſiſt to ſay more thereof; but if any to be further acquainted with *Chiroman-* ie may find ſufficient Tracts writ by

ſus Mantuanus, Cardan de varietate

Of DREAMS

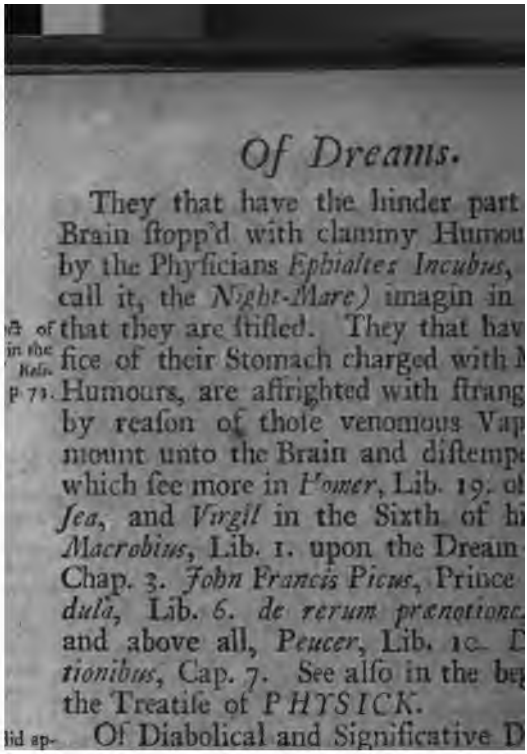
THE Doctrine of Dreams is ca
critica, and is ſuppoſed to b
by one *Faunus*, as you may ſee in *A*
p. 336.

It is a Conjecturing Art that
many Followers amongſt the greate
phers, ſince the firſt Practicer ther
Philo, in his Book of the Gyants, a
vil Life, calleth by the Name of
nor doth the Names of *David* an
eſcape being fixed to Treatiſes here
the cauſes of Dreams, External an
the Dream-Mongers cannot agree; ſ
tonicks reckon them among the Sp
Concrete Notions of the Soul; *Avi*
the cauſe of Dreams to be an Ill

m the Things themſelves; *Albertus* to erior Influences which continually flow he Sky thro' many Specifick Mediums; e Phyſicians impute the cauſe thereof pours and Humours, and the Affe- and Cares of Perſons predominant when : For by reaſon of the abundance of rs, which immoderate Feeding exhaleth, ain being therewith ſtuffed, formeth in- Monſters, and ſtrange Chimera's, where- greateſt Eaters and Drinkers may well us. Some Dreams are governed part- the Temperature of the Body, and part- the Humour which aboundeth moſt in to which may be joyned the Apprehen- which have preceded the day before, as e ſaith in his Fourth Book,

reateſt Warriors dream upon their Fight,
Saylor's how to ſhun the Winds deſpight.

his is diſcovered in Hounds, and ſome Creatures, who Bay and Bark in their As to Dreams Proceeding from the Hu- and Temperature, or Diſtemper of the we ſee they in whom
lerick Humour aboundeth, dream of ngs, Combates, yellow Colours, and ſuch they affect.
e Flegmatick ſee Waters, Baths, Sail up- Sea, and dive into the Water, *&c.*
e Melancholy think they ſee thick Fumes, Dream that they Toil in Obſcurity thro' ts, where they meet with Fantaſies and is Faces.
e Sanguine ſeem to be at merry Feaſts, s, Dalliances, and ſee all Things ſhine them.



Of Dreams.

They that have the hinder part
Brain ſtopp'd with clammy Humou
by the Phyſicians *Ephialtes Incubus*,
call it, the *Night-Mare*) imagin in
of that they are ſtifled. They that hav
in the fice of their Stomach charged with
Relat. p. 71. Humours, are affrighted with ſtrang
by reaſon of thoſe venomous Vap
mount unto the Brain and diſtemp
which ſee more in *Homer*, Lib. 19. o
Jea, and *Virgil* in the Sixth of hi
Macrobius, Lib. 1. upon the Dream
Chap. 3. *John Francis Picus*, Prince
dulâ, Lib. 6. *de rerum prænotione*
and above all, *Peucer*, Lib. 10. D
tionibus, Cap. 7. See alſo in the be
the Treatiſe of *PHYSICK*.

lid ap- Of Diabolical and Significative D

Chaldeans and *Perſians* did judge ſome worthy of Obſervation, therefore they rſons appointed amongſt them, whoſe nient was to diſcover the Deſign and on of Dreams. Amongſt the *Romans*, erpretation of Dreams was the Office of *gures*. *Ariſtotle* obſerves, that ſuch as have any Dreams, have more reaſon to hem. Tho' *Marcus Cicero*, in his Book nation, and many other Writers, give it Reaſons againſt the Vanity of thoſe e Credit to Dreams, yet beſides thoſe *ph* and King *Pharaoh*, mentioned in re, there are many others, whoſe Events hem worthy our Conſideration.

urnia, Wife to *Cæſar*, dreamed the before *Cæſar*'s Death, that ſhe ſaw him n the Capitol. *Artorius*, the Phyſician *ſtus Cæſar*, dreamed before the Battle *ippi*, that his Maſter's Camp was Pil- which had no leſs Succeſs than that of *nia*.

ſian the Emperor, dreamed a Perſon m, his good Fortune would commence *Vero* ſhould have a Tooth drawn, which happened accordingly.

nides the Poet having interred a dead he found on the Sea-ſhoar, the Night reamed the Perſon appeared to him, viſed him not to venture to Sea, which not; and his Aſſociates proceeding on oyage, periſhed by a Tempeſt.

ritius the Emperor, who was ſlain by , dreamed a little before, that an Image iſt, which was over the Brazen Gate of ace, called him and charged him with s, and in the end demanded of him, r he would receive the Puniſhment

At *Nibarea* in *Perſia*, was the famous Oracle of Dreams.

Faunus in *Italy*, *Amphiaraus* in *Greece*, *Morpheus*, &c. were Gods did appear to their Worſhippers in Dreams. See in *Magick*, p. 336.

One ſaid of Dreams, It is neither good to be Superſtitious in all, nor yet an Epicure conſiderate of none.

thereof in th's Life or the next. An
ſwering, *In this.* The Image comma
ſhould be given, with his Wife and C
into the Hands of *Phocas.* Whereup
ritius awaking in great Fear, aſked P
his Son-in-Law, whether he knew any
in the Army called *Phocas*; he anſwere
was a Commiſſary ſo called. And *Ph*
his Succeſſor, having killed him, with
and Five Children. *Zonaras, Ann. To*
Mauritio.

Septimius Severus dreamed he ſaw
break his Neck by a Fall, and that th
came towards him, willing to be
Which fell out truly, for *Severus* wa
Emperor in his Place.

Amilcar, the *Carthagenian* General, b

Cure ſucceeded according to his Dream.
is was a famous Princeſs, the only
and Heireſs of *Homortes*, King of Part
ria. When ſhe was ſought in Marriage,
uſed all that came to make their Ad-
unto her, and was reſolved to beſtow
upon a ſtrange Prince whom ſhe had
a Dream; and fanſied ſo much, that
ld not be quiet until ſhe had diſpatch-
y Meſſengers to him, to fetch him to
her's Court.

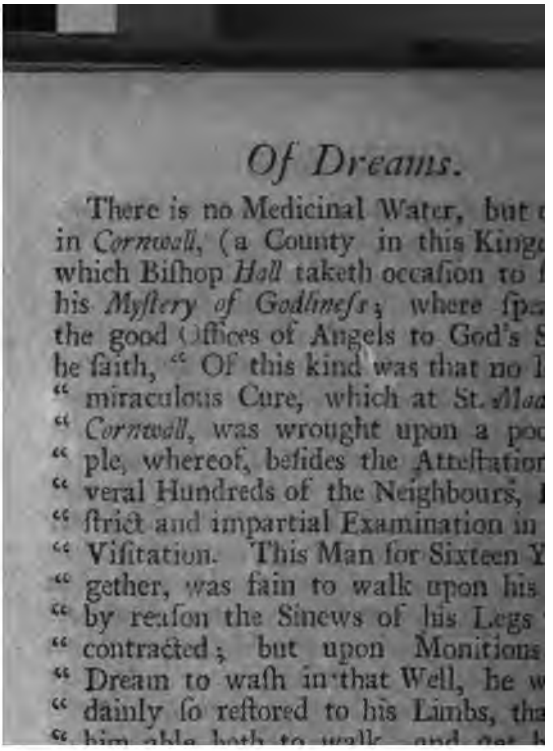
dreaming he committed Inceſt with
other, was crowned Emperor of *Rome*;
dreaming the like, died ſhortly after,
as interred in his Mother-Earth, *viz.*
, the Tyrant of *Athens*.

Gracchus, Tribune of the Soldiers at
dreamed that he heard his Brother *Tibe-*
ll him, that he ſhould die the ſame
which he had done; which *Cicero* re-
e told to many before he was created
e, and indeed happened accordingly.
's *Key of Hiſtory*, in *Engliſh*, p. 83.

Dream of *Maia*, the Mother of *Virgil*,
of the *Latin* Poets) ought not to be
over in Silence, who thought that ſhe
livered of a very fair Lawrel Branch;
inent Reward of Poets) and indeed *Vir-*
ited that Crown above all other of the
See in *POETRY*, p. 79.

y of the Orders of a Monaſtick Life,
ntioned by Writers, to be occaſioned
ine Inſpirations, or Warnings delivered
Authors of them in Dreams, as the Or-
Trinitarians, *Auguſtinians*, Order of
f St. *Katharine*, &c. the Monks of the
of *Camaldulenſes*, the Monks of St. *An-*
&c.

There



Of Dreams.

There is no Medicinal Water, but
in *Cornwall*, (a County in this King
which Biſhop *Hall* taketh occaſion to
his *Myſtery of Godlineſs*; where ſpe
the good Offices of Angels to God's
he ſaith, " Of this kind was that no
" miraculous Cure, which at St. *Mo*
" *Cornwall*, was wrought upon a poo
" ple, whereof, beſides the Atteſtation
" veral Hundreds of the Neighbours,
" ſtrict and impartial Examination in
" Viſitation. This Man for Sixteen Y
" gether, was fain to walk upon his
" by reaſon the Sinews of his Legs
" contracted; but upon Monitions
" Dream to waſh in that Well, he w
" dainly ſo reſtored to his Limbs, tha
" him able both to walk, and get h

's dreaming, that if he came to *London*, ſtood on the Bridge of that City, he uld hear joyful News; at laſt came up, ſtood thereon three or four days, which g obſerved by a Shopkeeper, and aſked reaſon, returned for Anſwer the Dream ad; at which the Shopkeeper reproved for his Superſtition, telling him, that he ſelf had dream'd he was at *Sopham* in *Nor-*, and that behind a Pedlar's Houſe, under eat Oak lay concealed a mighty Treaſure, (ſaid he) I would not go down to an un-wn Place, invited only by a Dream. The lar well obſerving him, returned with all d, and digging in the Place behind his Houſe, found an infinite Sum, with Part reof (the Church happening to fall down) ery ſumptuouſly re-edify'd; in Memory reof, his Statue is there at this very day. falſe Dreams ſee in *MAGICK*. Of a un that detected a Murtherer, ſee *Baker*'s onicle, *p.* 153. in the Reign of King es I. See the Dream of one *Cuthbert Symp-* in Queen *Mary*'s Days, mentioned in s Book of Martyrs.

ltho' Dreams are (as it is commonly ſaid) e underſtood by Contraries, yet for fur- Explanation, take what the Wiſdom of Ancients Inſtruct in their

IN-

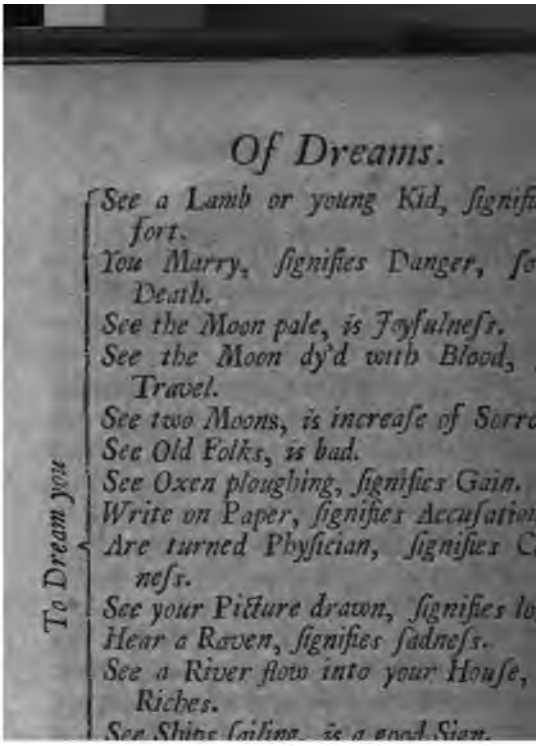
Of Dreams.

INTERPRETATION *of* DREAM

Have Buſineſs delayed by an Adve
ſignifies Diſpatch.
Commit Adultery, ſignifies Quarrels.
See Ants, ſignifies Strife.
Behold an Altar, ſhews Rejoycing.
Eat Apples, denotes Choler.
Have weak Arms, ſignifies Torment.
See an armed Man, ſignifies good Luc
See an Aſs, ſignifies Malice.
Cut Bacon, ſignifies Death of ſome Pe
Eat Bacon or Salt Meats, ſignifies
murings.
Bath in a clear Fountain, ſignifies Joy
Bath in ſtinking Water, ſhews Shame.
Eat Beans, ſignifies Sickneſs

If I Dream you

Wear a Crown, ſignifies Honour.
Give any Thing to one Dead, ſignifies Loſs. D.
Fall in the Dirt, ſignifies Treachery.
Hear Dogs bark, ſignifies overthrow of Enemies.
See Dragons, ſignifies Gain.
See an Eagle fly over your Heads, ſignifies Honour. E.
See broken Eggs, is an ill Sign.
Loſe your Eyes, ſignifies Death of a Friend.
Carry a Falcon on your Fiſt, ſignifies Honour. F.
Waſh your Feet, ſignifies Moleſtation.
Cut your Fingers, ſignifies Damage.
Gather Flowers, ſignifies Mirth.
See Fire, ſignifies haſty News.
See Flies, ſignifies Enemies.
See Fountains, ſignifies Sadneſs.
Walk in a Garden, ſignifies Joy. G.
Gather Grapes, ſignifies Damage.
Fall on the Ground, ſignifies Diſhonour.
See Perſons Hanging, ſignifies Damage. H.
Pluck the Hair of the Head, ſignifies Loſs of Friends.
Waſh your Hands, ſignifies Diſquiet.
Hear Hens cackle, ſignifies Joy.
Aſcend to Heaven, ſignifies Advancement.
See white Horſes, ſignifies Joy.
Build an Houſe, ſignifies Comfort.
Go a Hunting, ſignifies ſome Accuſation.
Are Inchanted, ſignifies Secrets and Sorrows. I.
See your ſelf hurt with Iron, ſignifies Damage.
Kill a Man, ſignifies Aſſuredneſs of Buſineſs. K.
See the King or Queen, ſignifies Honour.
Aſcend a Ladder, ſignifies Honour. L.



Of Dreams.

To Dream you

- *See a Lamb or young Kid, ſignifi*
  fort.
- *You Marry, ſignifies Danger, ſo*
  Death.
- *See the Moon pale, is Joyfulneſs.*
- *See the Moon dy'd with Blood,*
  Travel.
- *See two Moons, is increaſe of Sorr*
- *See Old Folks, is bad.*
- *See Oxen ploughing, ſignifies Gain.*
- *Write on Paper, ſignifies Accuſatio*
- *Are turned Phyſician, ſignifies C*
  neſs.
- *See your Picture drawn, ſignifies lo*
- *Hear a Raven, ſignifies ſadneſs.*
- *See a River flow into your Houſe,*
  Riches.
- *See Ships ſailing, is a good Sign.*

ſ Dreams *and* Apparitions.

the Apparitions *of* Ghosts.

[ERE is a great Similitude between he Internal World, or Incorporeal Be- and the Soul and Spirit of Man, by of which Affinity, it comes to paſs that departed or ſeparated from their Bodies i Divorce is called Death) do often com- ate their Deſires, and reveal various Se- unto their Friends. For Dreams are In- eal, like the Soul or Spirit (and the Sorrow that is apprehended is as Eſſen- the Soul as any ſenſual Pleaſure, Fear ef is to the Body; and when the Body l, and the Soul ſeparated from it, then orporeal things become as Subſtantial as al things do to the Body; and the See- ſearing, Taſting, Smelling and Feeling Real and Eſſential to the Spirit, as all ſ groſs Subſtances are to the outward). And the Souls deceaſed have no other impart their Secrets that is ſo familiar , except ſome few who at their Death, atly affectionated to Wife and Children, like, and die in a very ſtrong Deſire vealing ſomething that lies hid, or to ſt their Affections to their ſurviving s; and theſe ſometimes do it by aſſu- n Aerial Body, and appearing Affections the chief General Cauſe of Apparitions ls departed. But then the Will and De- uſt be very ſtrong and powerful at the ture of the Soul from the Body, or elſe ot cloath it ſelf with a Sidereal or Ele-

mental

mental thin Body; for the External Ey
not ſee any thing but what is like it
compounded of the ſame Elements; an
is great difficulty for any Soul to cloa
with a Material Body, neither indeed
be done, if the Affections and Deſires
wonderful ſtrong and powerful. Whic
dow or thin Body continues no longer t
radical Moiſture in the deceas'd Body
ſome degree continue; for as the M
and Matter of the Body does waſte and
ſo the Apparition or Ghoſt does grow
and at laſt vaniſh.

For the Soul cloathed it ſelf by the
the Matter contained in the Body, w
done by a Sympathetical Operation b
the External and Internal; for there
Likeneſs or Relicks of the Spirit remai

Fluid Humours and Spirits yet remain-
he Body, it attracts a ſubtle Matter, in
having veſted it ſelf, it becomes to out-
iew Corporeal. (See the Story related
gon, and recited hereafter.) But if
ly ſhould be conſumed by Fire, then
it or Soul would be prevented wholly
tter for this Sidereal Cloathing, and
re this way of burning the Dead Bodies
actis'd as in divers other Nations, ſo
England, in former Ages; for then it
ore frequent for departed Souls, as alſo
ers other ſorts of Spirits to appear to
ving, than hath been of late Years.
Reaſons for which you ſhall have pre-
Therefore they did conſume their Dead
with Fire, by which there was an im-
e and full Separation between the Body
ul, and no Simile remain'd, and conſe-
no Matter could be attracted or coagu-
for the Formation of ſuch Spectres or
itions.

ſome write it is far eaſier and familiar
Deceaſed Souls to communicate their
to their Living Friends in Dreams, than
ear thus in External Forms by Cloathing
lves with thin Elemental Bodies; for
n Dreams are nearer unto the Condition
rted Souls than when awake, and therefore
an with eaſe and great familiarity diſ-
and reveal their Minds unto them; more
lly if there were a Simile between their
, or if there was a hearty Love and
on whilſt they lived; and for this rea-
Souls of Strangers do ſometimes make
ation to ſuch ſympathizing Souls of the
, whilſt the Body lies aſleep and reveal
Secrets, or foretel them of things ſome-

times good, and ſometimes evil that a
to befal them. See about the Begi
this Treatiſe of *DREAMS*.

ons But there is ſuch a vaſt Diſpropo
and tween the Incorporeal Beings, *viz.* S
nor
ıeſe parted, Spirits and Angels on the
and our outward Material Senſes an
on the other, as makes all theſe w
Myſteries that happen to Man of this
appear but as meer Fantaſies, Shadow
nity; and therefore this ſecret Spiritu
verſe of Souls are derided in the highe
which Unbelief or Incredulity doth
drive away, and cauſe a Separatio
Souls of the Deceaſed, as alſo of all
rits or Angels, which otherwiſe w
more prompt and ready to ſuch Com
nions: For a ſtrong Faith, firm Def

and had Myſteries revealed to them from God and his Miniſtring Spirits in Dreams and Viſions, as appears in the Holy Scriptures as *Geneſis* 20. 3. God came to *Abimelech* in a Dream, *&c. Gen.* 31. 10, 11. The Angel of the Lord appear'd to *Jacob* in a Dream, *&c.* See *Geneſis* 37. 9. and 40. 5. Of *Pharaoh*'s Dream, ſee *Geneſis* 14. 1. *&c. Numb.* 12. 6. ſaith, *If there be a Prophet among you, I the Lord, will make my ſelf known unto him in a Viſion, and will ſpeak to him in a Dream.* See *Sam.* 28. 15. Where *Saul* complains to the deceaſed Spirit or Soul of *Samuel* (of which ſee more in the Treatiſe of *MAGICK*, *p.* 339.) See alſo *Judges*, *cap.* 7. 1 *Kings* 3. 5. *Job* 33. 14, 15, 16. and many other Places.

Of the ſeveral Apparitions of Angels, ſee in the Treatiſe of *METAPHYSICKS*, *Vol.* 1. *pag.* 29.

St. *Paul* would not have us believe an Angel from Heaven ſhould he admoniſh otherwiſe to us than the Church teacheth.

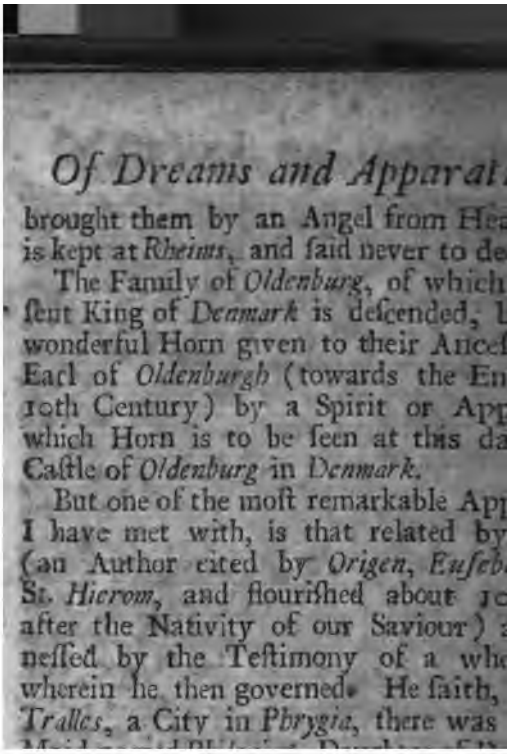
Trithemius's Obſervation is, That never any good Angel appeared in the Shape of a Woman. And *Van Helmont*, in his 93d Chapter, hath theſe Words: If an Angel appear bearded, let him be accounted an Evil one; for a good Angel hath never appeared with a Beard.

St. *Auguſtine* teſtifies, that he himſelf once ſaw a Corporeal Dæmon.

Hiſtorians write, the Spirit of *Cæſar* appear'd to *Brutus* in the Plains of *Philippi*.

Many Apparitions of Gobblings and the like, were ſeen at the Attempts made to cut the ſeveral Iſthmus's mention'd in the Treatiſe of *OECONOMY*, *Vol.* 1. *p.* 45, 46.

The *French* boaſt the Oyl with which they anoint their Kings at the Coronation, was



Of Dreams and Apparat

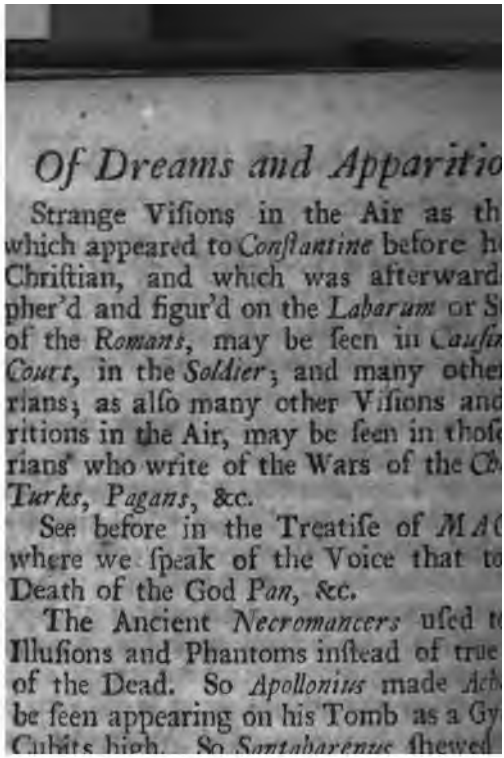
brought them by an Angel from Hea
is kept at *Rheims*, and ſaid never to de
The Family of *Oldenburg*, of which
ſent King of *Denmark* is deſcended, l
wonderful Horn given to their Ancef
Earl of *Oldenburgh* (towards the En
10th Century) by a Spirit or App
which Horn is to be ſeen at this da
Caſtle of *Oldenburg* in *Denmark*.

But one of the moſt remarkable App
I have met with, is that related by
(an Author cited by *Origen*, *Euſeb*
St. *Hierom*, and flouriſhed about 1c
after the Nativity of our Saviour) :
neſſed by the Teſtimony of a whe
wherein he then governed. He ſaith,
Tralles, a City in *Phrygia*, there was

nion, ſitting by him, with the ſame Coun-
ice and Cloaths ſhe wore in her Life-time;
at amaz'd, ſhe run and told the Father
Mother their Daughter was alive. They
hended the Servant as one diſtracted; but
Miſtreſs went by Night into the Chamber
erceiv'd nothing at all able to reſolve her.
efore, next Day, ſhe threw her ſelf at the
of *Machates*, and conjured him to tell her
lame of the young Maid who converſed
him. The Gentleman at length (being
ig for brevity to omit ſeveral Circum-
s of this Relation) ſaid he was married
ilenion, and ſhewed her a Gold Ring her
hter had given him, with a piece of Lin-
he wore about her Neck, proteſting ſhe
is Wife; ſo much was he ſeduced by the
Practices of the Evil Spirit. The Mo-
kiſs'd the Ring, embracing *Machates*, *&c.*
ing the whole Family to ſorrow, which
o ſee this Spectacle) and entreated as a
ſie one Comfort he could not deny an
ed Mother; which was once again to ſee
Daughter whom ſhe accounted Dead.
ates promiſed to give her all ſatisfaction,
as *Philenion* came ſecretly according to
n to converſe with him, he cloſely ſent
ackey to the Mother who advertiſed her
nd of it, and both came to *Machates's*
ber, where they ſurprized their Daugh-
nd caſt themſelves about her Neck, *&c.*
ne Daughter, with a ſad dejected Coun-
e, fetching a deep Sigh ſaid, Alas! lo-
Father and Mother, your curioſity will
rou dear; for you will lament me the
l time. And thereupon fell down as
leaving a horrible ſtink in the Chamber,
filled the whole Houſe with Terrour,

Groans, *&c.* ſo that the Neighbours, the City ran thither to behold the Corp Magiſtrates wondring at an Accident ſ ful, deputed ſome Citizens neareſt o open the Tomb, where the Body of could not be found; but only a Cup a ſhe had received from this Gentlema Carrion was by Decree of the Senate on the Dunghil and the City purge *Machates* being overwhelmed with Shar himſelf. *Phlegon*, who was a Spectato Accident, wrote this Hiſtory on pur ſend a Man immediately to the Emp *drian* to make a Recital thereof unto hi ſaith in a Letter directed to a Friend And this Story is recited in *Cauſi Court*, Tom. 3. p. 162. where he ſpea the Return of Souls.

on of Souls in Purgatory. See alſo
gious Narration of *Palladius*, and re-
Cauſin, Tom. 3. p. 178. Of the Monk
's travelling through the hideous and
Deſarts of *Egypt*, in his way e're he
re, ſet a Palmer's Staff which he had in
l upright upon the Head of a dead
nich uttering a ſad and frightful Voice.
s ſtood ſtill and aſked, Whoſe art thou?
red, I am the Head of one damned,
more of this in *Cauſin*.
in his *View of Religions*, p. 284. gives
ge Account of the Occaſion of the In-
of the *Carthuſians* or *Charter Friars*;
nor of which Order was one *Bruno*,
Collen, and Profeſſor of Philoſophy in
bout *Anno Chriſt.* 1080. For this *Bruno*
eſent at the ſinging of the Office for
w Profeſſor juſt dead (a Man highly
for his Holy Life), the dead Corps
y ſitteth up in the Bier, and cryeth
in God's juſt Judgments condemned.
Words it uttered Three ſeveral Days;
Bruno was ſo affrighted, that a Man
ious was damned, that he reſolved to
the World. Hereupon, he with Six of
lars, betook themſelves to a hideous
dark Woods, high Hills, Rocks, and
aſts, in the Province of *Dauphine* near
, the Place was called *Carthuſia*,
his Monks took their Name, and there
Monaſtery, having obtained the Ground
, Biſhop of *Grenoble*, who alſo became
of that Order, which was confirmed
Alex. III. *Anno* 1178. Some of this
ame into *England*, *Anno* 1180. and ſeat-
ſelves at *Witham* near *Bath*. The ſtrict
f the Order. See *Roſs*, p. 285, 286.



Of Dreams and Apparitio

Strange Viſions in the Air as th
which appeared to *Conſtantine* before h
Chriſtian, and which was afterward
pher'd and figur'd on the *Labarum* or S
of the *Romans*, may be ſeen in *Cauſi*
Court, in the *Soldier*; and many othe
rians; as alſo many other Viſions and
ritions in the Air, may be ſeen in thoſ
rians who write of the Wars of the *Ch*
Turks, *Pagans*, &c.

See before in the Treatiſe of *MA*
where we ſpeak of the Voice that t
Death of the God *Pan*, &c.

The Ancient *Necromancers* uſed t
Illuſions and Phantoms inſtead of true
of the Dead. So *Apollonius* made *Ach*
be ſeen appearing on his Tomb as a Gy
Cubits high. So *Santabarenus* ſhewed

Of HERALDRY.

NOBILITY was the Foundation of the Noble Art of *Heraldry*; and Philoſophy h been very much employed in deſigning d ordering the Arms of Noblemen. It is a ntemplation full of pleaſing Variety, ſym- hizing with every noble and generous Diſ- ition; and how ſhould we give Nobility her e Value and Reſpect without notice of her it: And how may we know that Merit hout outward Signs and Badges of Virtue, ch anciently have been accounted Sacred Precious.

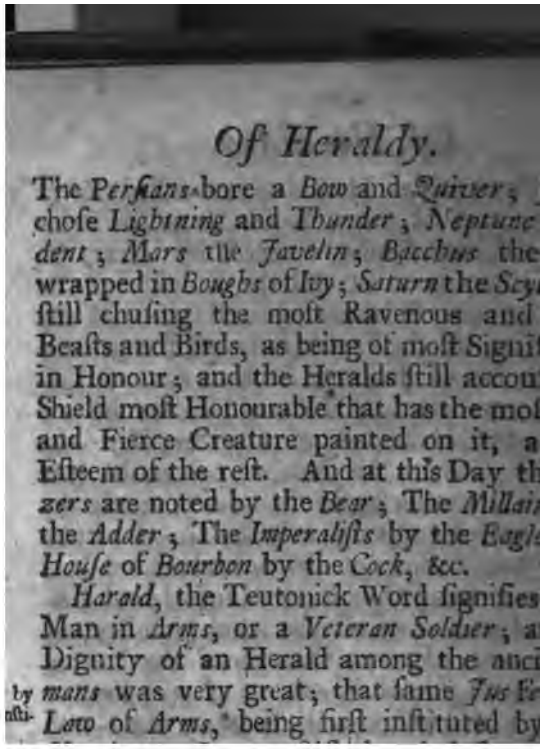
s touching the Antiquity of Arms: God king to the *Moabites* ſaid, *Every Man of the dren of* Iſrael *ſhall pitch under his own Stan- , and under the Arms of their Fathers Houſe.* hors make mention of Arms, or Tokens which Appellation they went anciently) 7 or 800 Years before the Siege of *Troy*, ch is about 2900 Years ſince.

he *Romans* choſe the Eagle; The *Phrygian* Sow; The *Thracians Mars*; The ancient *ls* the Bear; The People of the *Alani*, and old *Egyptians*, a Cat; The *Saxons* the Lyon, lſo the old *French* the Lyon and Salaman- ; but afterwards the *French* took the Toad, the *Saxons* the Horſe, and now the *French* e the Flowers *de Liz*, which they ſay was t them by an Angel from Heaven to *Clovis* firſt Chriſtian King of *France*; The *Flemings* bear the Bull; The Enſign of the King of *tioch* was an Eagle holding a Dragon in his ws; That of *Pompey* a Lyon with a Sword; t of *Attila* was a crowned Genet, &c.

Arms of the old *Romans, Phrygians, Thracians, Goths, Alani, Egyptians, French, Saxons.*

Flemings, King of *Antioch*, *Pompey*, *Attila*, *Perſians*, *Jupiter*, *Neptune*, *Mars*, *Bacchus*, *Saturn.*

The



Of Heraldy.

The *Perſians* bore a *Bow* and *Quiver*; chuſe *Lightning* and *Thunder*; *Neptune* dent; *Mars* the *Javelin*; *Bacchus* the wrapped in *Boughs* of *Ivy*; *Saturn* the *Scy* ſtill chuſing the moſt Ravenous and Beaſts and Birds, as being of moſt Signi in Honour; and the Heralds ſtill accou Shield moſt Honourable that has the mo and Fierce Creature painted on it, a Eſteem of the reſt. And at this Day th *zers* are noted by the *Bear*; The *Millai* the *Adder*; The *Imperaliſts* by the *Eagl* *Houſe* of *Bourbon* by the *Cock*, &c.

Harald, the Teutonick Word ſignifies Man in *Arms*, or a *Veteran Soldier*; a Dignity of an Herald among the anci by *mans* was very great; that ſame *Jus Fe* nſti- *Law* of *Arms*, being firſt inſtituted by

The three chief Heralds, are called *Kings Arms*; and of them, 1. *Garter* is the Prin-pal, instituted and created by *Henry* V. hose Office is to attend the Knights of the arter at the Solemnities, and Marshal the lemnities of the Funerals of all the greater bility, as of Princes, Dukes, &c. 2. *Cla-ceux*, ordained by *Edward* IV. for he at-ing the Dukedom of *Clarence*, by the th of *George*, his Brother, whom he put Death, for aspiring to the Crown, made the ald, which properly belonged to the Duke *larence*, a *King at Arms*, and called him *entius*; his Office is to Marshal and Dis- the Funerals of all the lesser Nobility, as ghts and Esquires throughout the Realm, he South side of *Trent*. 3. *North-Roy*, or *roy*, whose Office is the same on the North of *Trent*.

Three Kings at Arms. Garter.

Clarenceux.

North-Roy. Nor. *i. e.* North. Roy, *i. e.* King.

here are besides Six others, properly called alds, according to their Original, as they e created to attend Dukes, *&c.* in Martial cutions, *viz. York*, *Lancaster*, *Somerset*, *mond*, *Chester*, and *Windsor*.

Six Heralds.

astly, there be four others called *Marshals Pursuyants at Arms*, reckoned after a sort the Number of Heralds, and do commonly ceed in the Place of the Heralds as they or be preferred; and these are named *e Mantle*, *Rouge Cross*, *Rouge Dragon*, and *rcullis*.

Four Pursuyants.

The Office of the Earl Marshal of *England* Hereditary, and consisteth especially in atters of War and Arms; whereof you may d in Books of Heraldry and Law, and in *panus* and *Tilius*, Lib. 2. Cap. *De Conestabili areschallo*.

ARMS.

Of Heraldry.

ARMES is from the *Latin* word *Ar*
ſignifies Shields, Targets, *&c.* on wh
engraven or depicted the Marks or E
Martial Men, which are Tokens or
blances, ſignifying ſome Act, Virtue,
lity in the Bearer, either by ſome wor
ploit performed in Military Affairs,
their Learning and Wiſdom, or by Ac
&c. See hereafter in the Coats of Arm
veral *European* Princes, *&c.* And thei
or Enſigns at the firſt had a chief Uſe
ſtinction of Tribe from Tribe, Army
Army, *&c.* being compoſed of one,
more Colours; whereof one was ever
or Yellow, which are termed Metals,
which are ſeven more Colours, prop
called.

ESCUTCHEON is derived fro

By Marſhalling is underſtood the joyning divers Arms in one Shield. Marſhalling, what.

Coats of Arms may be Blazoned by Planets, Precious Stones, and by Metals and Colours. But for the more ready knowing their eral Terms, as alſo of all Balls or Roundles, hich are not diſtinguiſhed by any Colour in zon, their Name denominating their Co-) take this following Table. Three ways of Blazoning.

tals and olours.	Precious Stones.	Planets Names.	Roundles.
	Topaze.	*Sol.*	*Beaſants.*
ent.	*Pearl.*	*Luna.*	*Plates.*
es.	*Ruby.*	*Mars.*	*Torteauxes.*
ure.	*Saphire.*	*Jupiter.*	*Hurts.*
le.	*Diamond.*	*Saturn.*	*Pellets*, or *Ogreſſes.*
r.	*Emerauld.*	*Venus.*	*Pomes.*
pure.	*Amethyſt.*	*Mercury.*	*Golpes.*
ure.	*Jacynth.*	*Dragon's Head.*	*Orenges.*
guine.	*Sardonyx.*	*Dragon's Tail.*	*Guzes.*

n the Blazoning of any Coat, firſt begin r the Field, and then proceed to the Bla- of the Charge; and if there be ſundry gs charged in the Field, whether they be one, or divers kinds, name that firſt which moſt predominant, and lyeth next the Field, ning the Metal firſt when it may be, and ng the feweſt words you can, not repeating *On*, *And*, *With*, above once in Blazoning y Coat; but if occaſion be to expreſs one lour twice, you muſt ſay, *Of the Firſt*, *Of Second*, &c. according as the Metal or Co- r had been firſt or ſecond named. And for better Rule in Blazon, obſerve, Directions for Blazoning.

1. All

cheon or firſt Charge, it is to be ſaid *all.*

3. If the Field conſiſts of equal Numb is to be called *Barry*, *Paly*, *Bendy*, *C* of Eight, Ten, or Twelve Parts, (if the ber be even) elſe it muſt be ſaid of ſo *Barrs*, *Pales*, or *Bends.*

4. *Lyons*, *Griffins*, *Wolves*, and *Bea* exactly in *Pale*, are ſaid to be *Rampant*; ſet more Bendways, *Lyons*, *Wolves*, and are *Saliant*; *Griffins*, *Segrant*. *Lyons* a *Langued* (i. e. *Tongued*) and *Armed* o different Colour often from that of the *Griffins* are *Armed*; *Eagles* and *Swans*, *bred*; *Hawks* are *Jeſſed* and *Belled*; *Co Armed*, *Creſted*, and *Velloped*; *Capons* ar *ed*, *Creſted*, and *Jowlopped*. All which are to be expreſſed when the Tongues and Claws are of different Colour fr Body.

5. *Lyons* are moſt commonly born and then they are either *Rampant*, *R Guardant*, or *Rampant-Regardant*; whe

Creatures partly born, as the Head, &c. are either *Eraſed*, (or torn off) or , (cut off.) *Note*, The Paw of a *Lyon* d a *Gamb*. 6. Rule.

When *Lyons*, *Eagles*, or other fierce Creatures eating, term it *Ravening*, and tell n; but when they appear with *Flowers* , &c. in their Mouth, it may be ſaid ing or *Devouring*. 7. Rule.

All Fowls are born *Going*, *Sitting*, *Standing*, *Volant*, that is, *Flying*. Their Beaks et in *Cocks*, &c. are termed *Armed*, but Feet are called *Tallons*. *Eagles* are often iſplayed with two Heads, and now and loſed, which is when their Wings are ead. 8. Rule.

iſhes are either termed *Naiant*, or *Haurient*. When three or four are born intermixth each other, it is termed *Fretted*. 9. Rule.

Lyons, or any Creatures that proceed he bottom of any *Ordinary*, (of which ſpeak hereafter) it is termed *Iſſuant*; over two Colours, *Jeſſant*; when from iddle, *Naiſſant*, or *Swimming*, yet theſe metimes called *Demi-Lyons*. And as s Dividing and Abating of *Lyons*, ſo is ometimes *Lyons* born with two Heads, *yons* Bicorporated and Tricorporated, eſe Bearings are very rare. A *Lyon*, er Thing, ſaid to be *Umbrated*, is when ape is only tricked out with a Pencil, ie Field appears thro' it. *Lyons* are mes born *Barry*, *Vairy*, *Nebulee*, &c. 10. Rule.

Stags are Blazoned either *Tripping*, g *at Gaze*, *Lodged*, (when Reſting on a) *Springing forward*, and *Currant* (when g.) *Bucks*, when their Horns are ſpoke ſaid to be *Attired*. All Creatures that are 11. Rule.

there be any *Ordinary* in the *Field*, whe
three Things, it alters not their Positio
if there be ſix, they are commonly ſet
wiſe.

13. *Semi* is when *Croſſes*, *Flower de*
Billets, &c. are born throughout over the
the part of ſome of them appearing
edges of the Shield.

14. *Gutty* are Drops made thus
are named according to their Colour, a
ty de Gules, if Red; *Gutty de Larmes*,
Gutty de Eau, if White; *Gutty de Or*,
low; *Gutty de Poix*, if Black.

15. *Fretty*, is as it were ſo many *Sta*
ing equally acroſs and through one
over the *Field*; and being even in Num
always called a *Fret* of ſo many Pieces

16. *Mullets* are drops of Water, or
ſuppoſed by falling, to be diſtended in
or odd Points, and are only differen
Stars, in that *Stars* are always born wi
Points, as ſix, eight, twelve, or more
But in *Guillim* I find *Stars* of ſix Poin

h. A *Maſcle* is in the form of a *Lozenge*, s always voided.

. *Creſcent* is the Moon, with her Horns 18. Rule. ▸ the *Chief* of the *Eſcutcheon*, which form oftly uſed. *Increſcent* is her State of en- ; into her firſt Quarter, and has her Horns rds the *Dexter* part of the *Eſcutcheon*. *eſcent* is her Wane, with the Horns to the *er* part of the *Eſcutcheon*. *Detriment* is Eclypſe.

). *Beaſts*, *Birds*, *Flowers*, &c. when of the 19. Rule. ur natural to them, in Blazoning, are ed *Proper*. *Note*, *Martlets* are *Birds* al- 's painted without Legs, becauſe they ne- uſe them, altho' they have them; and *rions* are *Birds* wanting Beaks, Legs, and t.

o. *Bordures* charged with dead Things, 20. Rule. ſaid *Entoire*, as of *Beſants*, *Coronets*, *s*, &c. and *Enaluron* when charged with *ls*.

rmines are in Number Six; 1. *Ermine*, be- White, powdered with Black, thus, ⁂ *Erminois*, Yellow, powdered with Black. *Ermines*, Black, powdered with White. *Pean*, Black, powdered with Yellow. *Verry*, or *Vairy*, which is always *Argent* *Azure*, thus,

ſs it be ſaid of two or three Colours. *Vairy Copie*, the two Colours being expreſ-

ompony is a *Checker* of but two in a Row, taining two Colours.

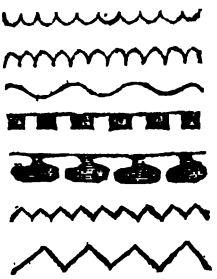
Gobony is but of one, as a *Bordure*, thus,

Checky is when there are three or mo in a *Bordure*, &c.

And now before I ſpeak of the Ho *Ordinaries*, I will diſtinguiſh the Poin *Eſcutcheon*, that when thoſe Points a pied, it may be known how to aſſi Point his apt and peculiar Name.

1. Signifieth the *Dexter Chief Point.*

d,
l,
, or *Embattled*,
, or *Cloudy*,
l,
e,



ſe and Straight Lines are compoſed the
NOURABLE ORDINARIES,

in Number, the *Croſs* being added aced firſt) ſince the Paſſion of Chriſt, light that was before. They are, Honourable Ordinaries.

CROSS, of which are many ſorts, as , *Patonce*, *Fitchy*, *Botony*, *Potent*, *Maſ-Patee*, *Furchy*, *Moline*, *Trunked*, *Ragu-ſlory*, *Double Pitchy*, *Lozengee*, *Checky*, *nee*, *Gobony*, *Corded*, *Nebulee*, *Waivy*, *ked*, *Indented*, *Ingrailed*, *Umbrated*, *Vai-nided*, *Portate*, *Flurt*, *Baſepointed*, *Quar-pierced*, of *Jeruſalem*, *Croſs Croſslets*. The Croſs.

CHIEF, which occupieth the upper of the *Eſcutcheon*. The *Chief* is ſome-born *Waivy*, *Indented*, *Quartered*, *In-d*, &c. This *Ordinary* is one of the Honourable, and is often charged with thing or other, and ſometimes hath a *n*, which lieth over ſome part of the The *Canton* is leſs than the *Quarter*, s often given as an Augmentation. The Chief.

FESS is the third Honourable *Ordina-*nd containeth a third part of the *Field*, his is often charged, but the *Bar* never The Feſs.

ar. 4. The BAR, this goeth croſs the E
like the *Feſs*, but containeth only
part of the *Field*. There is never
one *Feſs* in a *Field*, but there is o
than one *Bar*. When the *Field* c
equal Numbers, then it is to be ca
of ſo many Pieces; when it conſi
even Numbers, then it is ſaid
Bars. *Bars Gemews*, are *Bars* t
by Couples.

ale. 5. The PALE goeth down from the
of the *Eſcutcheon* to the *Baſe*, and
eth the third part of the *Field*. T
the *Pale* is the *Pallet*. The half of
the *Endorſe*. *Bearings Party per Pa
Baron* and *Feme*, are Married Coat

evron. 6. The CHEVRON is ſhaped like t

ith her Arms thereon) on the midſt of
r own Coat, and having got an Heir,
may then *Quarter* her Coat with his;
by this means Perſons of Quality come
ear many Coats.

Orle ſomething reſembles the *Ineſcutche-*
it is formed of a double Tract. Some-
are born *Orles* of *Lyons* Paws, *Martlets*,

Pile conſiſts alſo of a double Line,
g a kind of *Wedge*.

mentations are often given as a particu-
ark of Honour, and are born either in
cutcheon, or a *Canton*, as have all Ba-
of *England*, who bear the Arms of *Ul-*
Ireland, viz. *Ar.* a *Siniſter Hand Gules*,
the moſt commodious Place of their

e Diſtinction of Baſtardy, is the *Batune*,
Bordure.
e Diſtinction of a Traytor, is Reverſing
rms.
e Diſtinction of the Biſhops Arms, are by
Keys, the ends whereof appear from be-
their Coats.
e Diſtinction of Knights of the Garter,
a blue Garter rounding their Arms,
g thereon, *Honi Soit Qui Mal Y Penſe*.
e Diſtinction of a Maiden-Lady, is by
ng her Arms in a Coat ſhaped Lozenge-

e Diſtinction of a Widow, is by bearing
rms Impaled with her deceaſed Huſband's
Lozenge.

Of Heraldry.

The Diſtinction of Families, or D
for Brethren, are

1. A *Label* of three Points for the Eld
2. A *Creſcent* for the Second Son.
3. A *Mullet* for the Third Son.
4. A Martlet for the Fourth Son.
5. An *Annulet* for the Fifth Son.
6. A *Flower de Luce* for the Sixth.

And the Eldeſt Son of a Second H
bear a *Label* upon a *Creſcent*; the
Creſcent upon a *Creſcent*; the Thi
let upon a *Creſcent*, and ſo on. And
Son of a Third Houſe ſhall bear a *L*
a *Mullet*; the Second a *Creſcent* upon
&c. But Daughters all bear their
Coat, without any differences.

to's are common to many Families, and
ten according to the Fancy, as well as
of the Bearer.

Noble Enſigns of Royalty and Honour
ſtrate and Dignify the Head, are

he *Regnum*, or *Triple Crown* of the Pope.
ie *Crown Mitral Imperial* for Emperors.
ie *Mitre* for Archbiſhops and Biſhops.
ie Cardinals *Hat*, which muſt be Red.
he *Turbant*, worn only by the Grand
nior.
he *Diadem*, uſual to Kings.
he Princes *Coronet*, compoſed of *Croſſes*
Flower de Luces.
ie Dukes *Coronet*, all *Strawberry Leaves*.
he Marquiſſes *Coronet*, of *Strawberry*
ves and *Pearls*.
he Earls *Coronet* of *Pearls* (which ſtand
) and *Strawberry Leaves*.
he Viſcounts *Coronet*, ſet full of *Pearls*,
e to the Ring.
ie Barons *Coronet*, which hath but ſix
rls, four of them in ſight.
he *Chapeau*, or *Cap of Honour*, ſometimes
by Dukes.
he *Cap* of *Maintenance*, ſuch as the Lord
yor's Sword-Bearer wears.

Sampſon himſelf became Victorious at his own Grave in the Temple of the *Philiſtines*, *Sic ſua inter Trophæa Moritur Sampſon.* Erecting his own Monument within his own Grave, whence we have the Cuſtom of hanging Flags over our Sepulchres.

I now for the better Satisfaction of all
who are curious, will I compleat this
ſis, with ſetting forth the *Blazon* of
oyal Enſigns *Armorial* of the Queen
land, and the *Coats* belonging to the
ipal Sees of the Lords Spiritual, with
iternal *Coats* of all the Lords Temporal
s Kingdom, and then I ſhall proceed to
gn Potentates, Emblazoning the Arms of

the Emperors, Kings, Chief Princes,
the Common-wealths of *Europe*; li
ſeveral Emperors and Princes, who a
to bear any Arms in *Aſia*, &c. de
Reader will be pleaſed to obſerve
dexes ☞ in his way, which are or
where he may obſerve ſome Significat
Thing born, and thereby attain to
ſight into the Arcana's of Heraldry.

the The Arms of the Queen of *Gre*
ſince the Union, are *Quarterly*; the
land, viz. *Mars*, three *Lyons Paſſan*
Sol, Impaled with *Sol*, a *Lyon Ramp*
in a double *Treſſure Counterflowry*;
Scotland; in the ſecond *Quarter*,
three *Flowers de Liz*, *Sol* for *France*
third *Quarter*, *Jupiter*, an *Iriſh*
ſtringed, *Luna* for *Ireland*; the fourt

ıe Arms of that Family, of whom he is
ded that is Archbiſhop. Thoſe Bi-
ınder his Juriſdiction, are theſe that

|*ſaph.* Bears *Sable Two Keys* in *Saltier,* St. Aſaph.

or. Gules a *Bend, Or, Gutty de Poix,* Bangor.
wo Mullets Argent.
and *Wells. Azure* a *Saltier Quarterly* Bath *and* Wells.
red Argent.
ol. Sable Three Ducal Coronets in *Pale,* Briſtol.

heſter. Azure a *Presbyter John* ſitting on Chicheſter.
ſtone, in his *Left Hand* a *Mound*, his
land extended *Or*, with a *Linen Mitre*
Head, and in his *Mouth* a *Sword*, all

ntry and *Litchfield. Party per Pale,* Coventry *and* Litchfield.
nd *Argent*, a *Croſs Potent* and *Quadrate*
Center, *inter Four Croſſes Patee* of the
and *Or.*
avid's. Sable on a *Croſs Or Five Cinque-* St. Davids.
: the Firſt.
Gules Three Ducal Coronets, Or. Ely.
er. Gules a *Sword* in *Pale*, *Blade* and Exeter.
oper, Two Keys in *Saltier, Or.*
ceſter. Azure Two Keys in *Saltier, Or.* Glouceſter.
ford. Gules Three Leopards Heads Re- Hereford.
ſwallowing as many *Flower de Luces,*

laff. Sable Two Croſiers in *Saltier, Or* Llandaff.
gent, in a *Chief Azure, Three Mitres,*
eir *Labels*, of the Second.
oln. Gules Two Lyons Paſſant Gardant Lincoln.
a *Chief Azure*, our *Lady* ſitting with
e, Crown, and *Scepter*, of the Second.

London.

A Synopſis

London. Gules Two Swords in *Saltie*
the *Pomels Or.*

Norwich. Azure Three Miters, wi
Labels, Or.

Oxford. Sable a *Feſs Argent* in *Chi*
Ladies Heads Arrayed and *Veiled, Ar*
Crowned Or, and in *Baſe* an *Ox* of th
Paſſant over a *Ford, Proper.*

Peterburgh. Gules Two Keys in *Sa*
tween *Four Croſs Croſslets Fitchy Or.*

Rocheſter. Argent on a *Saltier Gule*
ſcallop-ſhell Or.

Salisbury, or *Sarum. Azure* our *L*
her *Babe* in her *Right Arm*, and a *S*
the *Left*, all *Or.*

Winchester. Gules Two Keys inde
Bend, the uppermoſt *Argent*, the oth
Sword interpoſed between them in *B*
ſter of the Second, *Pomel* and *Hilt* of t

LORDS TEMPORAL.

DUKES.

Cambridge (George Auguſtus) Electoral Prince of Hanover. Cambridge.

Norfolk (Thomas Howard) his *Armes, Gules* a *Bend* between *Six Croſlets Fitchy Argent*, in an *Eſcutcheon Or*, thereon a *Demi-Lyon* in a double *Treſſure Counterflowry, Vulned* with an *Arrow* through the *Mouth*, of the Firſt. Norfolk.

The *Eſcutcheon* was granted by K. *Hen.* VIII. to the Duke of *Norfolk* and his Heirs, for his Signal Service againſt the *Scots*, at the Battle of *Floddenfield*.

Somerſet (Charles Seymour) Quarterly 1ſt, *Or* on a *Pile Gules, inter Six Flowers de Liz Azure Three Lyons* of *England*. 2d, *G. Two Wings Impaled Or, Third* as the *Second, Fourth* as the *Firſt*. Somerſet.

The Firſt of theſe Coats was an Augmentation given to the Lady *Jane Seymour*, by King *Hen.* VIII. (whom he after eſpouſed) and then this Family placed it for their Paternal Coat; whereas before they bore *G. Two Wings conjoyned* for their Paternal Coat.

Grafton (Charles Fitz Roy) the *Arms* of the King of *England* with a *Batune Argent* and *Azure*. Grafton.

Ormond (James Butler) Or a *Chief indented Azure*. Ormond.

Richmond (Charles Lenox) the King's *Arms* with a *Bordure Gobonny Arg.* and *G. charged* with *Roſes* of the Second. Richmond.

Southampton (Charles Fitz Roy) the Kings Arms with a *Batune Siniſter Ermine*. Southampton.

Beau-

Beaufort (Henry Somerſet) Quarterly and England *Arg.* a *Border Gobonny* of and *Azure.*

Northumberland (George Fitz Roy) th Arms with a *Batune Gobony Az. and E*

Berwick (James Fitz James) th Arms, with a *Bordure Gobony* of *Eng France*

St. *Albans (Charles Beauclaire)* th Arms with a *Batune G.* charged wi *Roſes Argent.*

Schonberg (Meinhard Schonberg) Ineſcutcheon Sab. over all a *Carbuncle Rays Or*, with a *Creſcent* difference.

Shrewsbury (Charles Talbot) G. Rampant within a *Bordure Engrailed O*

Bolton (Charles Pawlet) Sab. Thre in *Pile Arg. Pomels Or.*

Bedford (Wriotheſley Ruſſel) Arg.

t, *Argent* a *Man's Heart G. Crowned Or* on a *ief Az. Three Mullets* of the Firſt. 2d, *Az. Bend Or Cottized* between *Six Croſlets Fitchy g.* 3d, As the Second. 4th, As the Firſt. ll within a *Bordure Or* charged with a *Treſſure Scotland*, with a *Creſcent* difference. Kent.

Kent (Henry Grey) Barry of *Six Arg.* and *z.* in *Chief Three Torteauxes.*

Brandon (James Douglaſs, Duke of *Hamil-n* in *Scotland) Quarterly.* 1ſt, *Gules Three nquefoiles Ermine Quartered with Argent*, an *rtique Ship Sab.* for *Hamilton.* 2d, *Argent* a *art G. Crowned Or*, on a *Chief Azure Three ullets* of the *Field* for *Douglaſſe*, *Third* as the cond, *Fourth* as the Firſt. Brandon.

MARQUISSES.

Lindſey (Robert Bertie, Lord Great Cham-rlain of *England* by Inheritance) *Arg. Three ttering Rams Barrewiſe* in *Pale Azure, Armed d Hooped Or.* The Deſcription of this *Bat-ing Ram*, ſee in the Treatiſe of *MILI-ARY ART.* Lindſey.

Dorcheſter (Evelyn Pierpoint) Arg. a *Lyon mpant Sable inter Eight Cinquefoiles Gules.* Dorcheſter.

EARLS.

Darby (James Stanley) Arg. on a *Bend Az. hree Bucks Heads Caboſed Or.* Darby.

Huntingdon (Theoph. Haſtings) Argent a *aunch Sable.* Huntingdon.

Pembroke and *Montgomery (Thomas Herbert) r Pale Az.* and *Gul. Three Lyons Rampant rgent.* Pembroke.

Lincoln (Henry Clinton) Arg. Six Croſlets, rchee Sable on a *Chief Azure Two Mullets Or erced Gules.* Lincoln.

Suffolk

Bin- *Suffolk* and *Bindon (Henry Howar* of the Duke of *Norfolk*, a *Creſcent* diff

Dorſet and *Middieſex (Lionel Cran* ville) *Quarterly Or* and *Gules* a *Bend*

Salisbury (James Cecill) Barry of *Argent* and *Azure* on *Six Eſcutcheo* many *Lyons Rampant* of the Firſt, difference.

Exeter (John Cevill) the ſame w *bury*, omiting the Difference.

er. *Bridgwater (Scroop Egerton) Arge* *Rampant Gul. inter Three Pheons Sab.*

Leiceſter (Robert Sidney) Or a *Phe*

con. *Northampton (George Compton) Sa* *Paſſant Gard. Or* between *Three Helm*

k. *Holland* and *Warwick (Edw. Hen. R* *Chevron inter Three Croſlets Or.*

h. *Denbigh (Baſil Fielding) Arg. on a*

erfield (Philip Stanhope) Quarterly Er- Chesterfield.
d Gules.

et (Thomas Tufton) Sab. an *Eagle diſ-* Thanet.
ſrm. within a *Bordure Arg.*

erland (Charles Spencer) Quarterly Ar. Sunderland.
les, in 2d and 3d a *Fret Or,* on a *Bend*
ree Eſcallop-ſhells of the Firſt.

dale (Nicholas Leake) Arg. on a *Saltier* Scarſdale.
ed, Sable Nine Annulets Or.

wich (Edward Mountague) the ſame as Sandwich.
ſter, a *Mullet* difference.

ndon (Henry Hide) Az. a *Chevron inter* Clarendon.
Lozenges Or.

(Algernoon Capel) Gul. a Lyon Ramp. Eſſex.
hree Croſlets fitchy Or.

gan (George Brudenel) Arg. a *Chevron* Cardigan.
inter Three Chapeaus Azure.

ſey (John Anneſly) Paly of *Six Argent* Angleſey.
ure a *Bend Gules.*

le (Charles Howard) the ſame as Duke Carliſle.
olk, with a *Mullet Sable.*

bury (Thomas Bruce) Or a *Saltier* and Ailesbury.
on a *Canton Arg.* a *Lyon Rampant Az.*

ngton (Richard Boyle) Per Bend Cre- Burlington.
g. and *Gules.*

sbury (Anth. Aſhley Cooper) Arg. Three Shaftsbury.
ſſant Sable.

ield (Edw. Henry Lee) Arg. a *Feſs, in-* Lichfield.
ee Creſcents Sable.

e (—— Leonard) Or, on a *Feſs Gules* Suſſex.
lowers de Liz of the Firſt.

lesfield (Fitton Gerrard) Arg. on a *Sal-* Macclesfield.
a Creſcent difference.

or (Charles Bodvile Roberts) Az. Three Radnor.
Or, a *Chief Waved Or.*

outh (William Paſton) Ar. Six Flowers Yarmouth.
Az. a *Chief indented Or.*

Berk-

Berkley (*Charles Berkley*) G. a *Che*
ter 10 *Croſſes Patee Arg.*

Nottingham (*Daniel Finch*) the ſam
chelſea before, *a Creſcent* difference.

Rocheſter (*Henry Hide*) the ſame
don before, *with a Creſcent.*

Abingdon (*Mountague-Venables Be*
ſame as *Lindſey*, with an *Annulet.*

Gainsborough (*Baptiſt Noel*) *Or*
Eight Pieces G. a *Canton Erm.*

Holderneſſe (*Robert Darcie*) *Azu*
Cinquefoiles, inter Semi of *Croſlets Arg*

Plymouth (*Other Windſor*) G. a *S*
ter Twelve Croſlets Or.

Darwentwater (*James Radcliffe*) *A*
Engrailed Sable.

Stafford (*Henry Stafford Howard*)
as Duke of *Norfolk*, with a *Creſcent* di

Portland (*Henry Bentinck*) *Arm*

arle (*Arnold juſt van Keppel*) *G. Three ſhells Arg.*	Albemarle.
try (*Thomas Coventry*) *Sab.* a *Feſs Ermine Three Creſcents Or.*	Coventry.
d (*Edward Ruſſel*) the ſame as Duke *rd*, with a *Creſcent* difference.	Orford.
y (*Edward Villers*) *Arg.* on a *Croſs G.* *allops Or.*	Jerſey.
tham (*Henry D'averquerque*) the ſame *ford* before, only the *Eſcutcheon* of *Pre- Arg.* a *Lyon Rampant Sable.*	Grantham.
rwich (*John Campbell*, Duke of *Argyle*) of *Eight Or* and *Sable.*	Greenwich *and* Duke of Argyle.
:ton (*Thomas Wharton*) *Sable a Mauncb* thin a *Bordure Or*, an *Orle* of *Lyons Saltier Gules.*	Wharton.
t (*John Pawlet*) the ſame as the Duke *n.*	Pawlet.
lphin (*Sidney Godolphin*) *G.* an *Eagle* *d* with *Two Heads* between *Three Flow- Liz Arg.*	Godolphin.
ondley (*Hugh Cholmondley*) *Gules Two in Chief Or*, and *Helmet* in *Baſe Point*	Cholmondley.
imer and *Oxford* (*Robert Harley*) *Or* *Cotiſed Sable.*	Mortimer *and* Oxford.
ford (*Thomas Wentworth*) *Sable* a *Che- ter Three Leopards Heads Or.*	Strafford.
mouth (*William Legg*) *Azure* a *Buck's* *ibaſed Argent.*	Darmouth.
rs (*Robert Shirley*) *Paley* of *Six Or* *ure* a *Canton Ermine.*	Ferrers.

VISCOUNTS.

ford (*Price Devereux*) *Arg.* a *Feſs G.* *Three Torteauxes.*	Hereford.

Mountacute (*Henry Browne*) *Sa*
Lyons Paſſant in a *Bend double Cottiſe*

Say and *Sele* (*Nath. Fienes*) *Azu*
Lyons Rampant Or.

Townſend (*Charles Townſend*) *Azu*
vron Ermine, inter Three Eſcallops A

Weymouth (*Thomas Thynne*). *Ten*
and *Sable.*

Falconberg (*Thomas Belliſiſe*) *Arg.*
G. inter Three Flowers de Liz Az.

Hatton (*William Hatton*) *Azure a*
inter Three Garbs Or.

Longueville (*Talbot Telverton*) *A*
Lyons Rampant, and a *Chief Gules.*

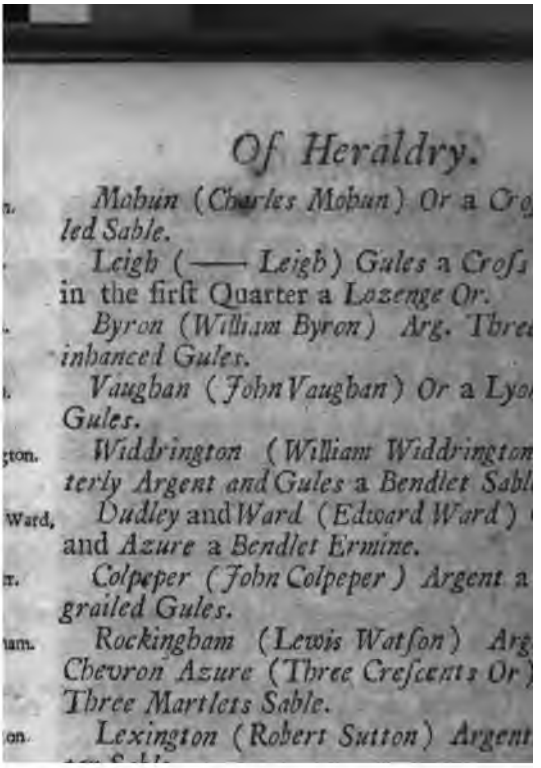
Villers (*Edward Villers*) *Arg.* a *Cr*
charged with *Five Eſcallops Or.*

Lonſdale (*Richard Lowther*) *Or S*
lets Three Two and *One Sable.*

ton (*Edward Stourton*) *Sab.* a *Bend Or* Stourton.
Fountains proper.
ghby of *Brook* (*Richard Verney*) *G.* Willoughby *of* Brook.
roſſes Recercele voided Or, a *Chief Vaire* and *Ermines.*
ghby of *Parham* (*Hugh Willoughby*) *Or* Willoughby *of* Parham.
of *Eight Pieces Az.*
(*William Paget*) *Sab.* a *Croſs Engrailed* Paget.
ur Eagles diſplayed Arg. charged with *ns Rampant* of the Firſt.
rd of *Effingham* (*Thomas Howard*) the Howard Effingh.
the Duke of *Norfolk*, with a *Creſcent* ce.
b and *Grey* (*William North*) *Azure a* North *and* Grey.
iſſant Or, *between Three Flowers de Liz*

los (*James Bruges*) *Argent* a *plain* Chandos.
b. thereon, a *Leopard's Head Or.*
don (*Will. Ferdinand Cary*) *Argent* on a Hunſdon.
ble Three Roſes of the Field.
(*Robert Petre*) *Gules* a *Bend Or*, *in-* Petre.
Eſcallop-ſhells Argent.
del of *Wardour* (*Thomas Arundell*) *Sa-* Arundel *of* War-
Swallows, *Three*, *Two* and *One Arg.* dour.
am (*Hen. Roper*) *Party per Fez Azure*, Tenham.
gent a *Pale Counterchanged*, *Three Roe-*
leads Eraſed of the Second.
(*Foulk Grevill*) *Sable* on a *Croſs* with- Brook.
rdure Engrailed Or, *Five Gunſtones.*
of *Wark* (*Ralph Gray*) *Gules a Lyon* Gray *of* Wark.
t within a *Bordure Engrailed Arg.*
lace (*John Lovelace*) *Gules* on a *Chief* Lovelace.
d Sable Three Martlets Or.
ard (*Baniſter Maynard*) *Argent* a *Che-* Maynard.
lzure between *Three Siniſter Hands*

ard of *Eſcrick* (*Charles Howard*) the Howard *of* Eſcrick.
the Duke of *Norfolk*, with a *Flower de*



Of Heraldry.

Mohun (*Charles Mohun*) *Or* a *Cro*
led Sable.

Leigh (—— *Leigh*) *Gules* a *Croſs*
in the firſt Quarter a *Lozenge Or.*

Byron (*William Byron*) *Arg. Three*
inhanced Gules.

Vaughan (*John Vaughan*) *Or* a *Lyo*
Gules.

Widdrington (*William Widdrington*
terly Argent and Gules a *Bendlet Sabl*

Dudley and *Ward* (*Edward Ward*)
and *Azure* a *Bendlet Ermine.*

Colpeper (*John Colpeper*) *Argent* a
grailed Gules.

Rockingham (*Lewis Watſon*) *Arg*
Chevron Azure (*Three Creſcents Or*)
Three Martlets Sable.

Lexington (*Robert Sutton*) *Argent*

ord of *Chudleigh* (*Hugh Clifford*) *Checky* Clifford *of* Chud-
d *Az.* a *Feſs Gules*, a *Creſcent* difference. leigh.

rn of *Kiveton* (*Peregrine Osborn*) *Quar-* Osborn *of Kive-*
rmine and *Azure* a *Plain Croſs Gules*, a *ton.*
of *Three Points* difference.

eret (*John Carteret*) *Gules Four Lozen-* Carteret.
Feſs Arg.

eſton (*Charles Bennet*) *Gules* a *Plate* be- Ouſtſton.
Three Lyons Naiſſant Argent.

ell (*William Stawell*) *Gules* a *Croſs Maſ-* Stawell.
gent.

dford (*Francis North*) the ſame as Guilford.
and *Grey.*

dgrave (*James Waldgrave*) *Per Pale Arg.* Waldgrave.
ules.

urnham (—— *Aſhburnham*) *Gules* a Aſhburnham.
nter *Six Eſtoiles of Eight Points Arg.*

pſter (*William Farmer*) *Argent* a *Feſs Sa-* Lempſter.
ween *Three Lyons Heads Eraſed Gules.*

on (*Charles Butler*) the ſame as the Weſton.
of *Ormond* his Brother, with a *Creſcent.*

bert of *Chirbury* (—— *Herbert*) the Herbert *of* Chir-
s the Earl of *Pembroke.* bury.

erſham (*John Thompſon*) *Or* on a *Feſs*, Haverſham.
d *Azure Three Eſtoiles*, *Arg.* a *Canton*
Second, *charged* with a *Sun* in his

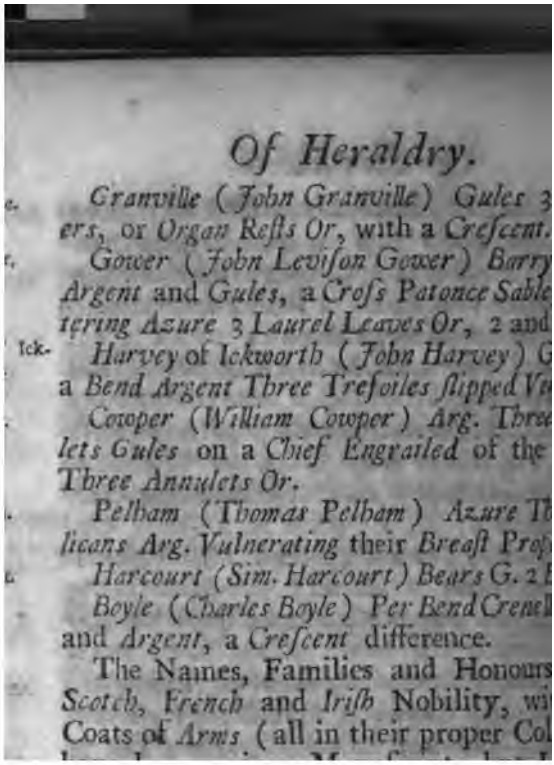
ners (*John Sommers*) *Vert* a *Feſs Dan-* Sommers.
rmine.

ard (*Chriſtopher Vane*) the ſame as the Barnard.
Weſtmorland, with a *Creſcent.*

fax (*Charles Mountague*) the ſame as Halifax.
l of *Mancheſter.*

rnſey (*Heneage Finch*) the ſame as the Guernſey.
f *Winchelſea*, with a *Creſcent* on a
t.

ay (*Francis Seymour Conway*) *Gules* a Conway.
Wings conjoyn'd and *diſplay'd Or*, the
wnwards.



Of Heraldry.

Granville (*John Granville*) *Gules* 3
ers, or *Organ Refts Or*, with a *Crefcent.*
Gower (*John Leviſon Gower*) *Barry*
Argent and *Gules*, a *Croſs Patonce Sable*
tering Azure 3 *Laurel Leaves Or*, 2 and
Harvey of *Ickworth* (*John Harvey*) G
a *Bend Argent Three Trefoiles ſlipped Vi*
Cowper (*William Cowper*) *Arg. Three*
lets Gules on a *Chief Engrailed* of the
Three Annulets Or.
Pelham (*Thomas Pelham*) *Azure* T
licans Arg. Vulnerating their *Breaſt Prof*
Harcourt (*Sim. Harcourt*) *Bears* G. 2
Boyle (*Charles Boyle*) *Per Bend Crenel*
and *Argent*, a *Crefcent* difference.

The Names, Families and Honours
Scotch, *French* and *Iriſh* Nobility, wi
Coats of *Arms* (all in their proper Col

ght Talon, and a Scepter in the Left (the 2 ads ſignify the *Eaſtern* and *Weſtern* Emes). The Shield is Creaſted with an Imial Crown cloſed and raiſed in the Shape of liter, having betwixt the 2 Points a Diadem nounted with a Globe and Croſs Or. The dem repreſents the Empire, and the 2 Points *nmark* and *Bohemia*; for the Motto are theſe rds, *Uno avulſo non deficit alter.* The Emors peculiar Deviſe is, *Pax & Salus Europæ.*

The Armorial Enſign of the Emperor of *Ruſſia.*

The Arms of the Emperor of *Ruſſia* is, Or, Eagle diſplayed with 2 Heads Sable, bearon its Breaſt a Shield; the Field being es charged with St. *George* killing a Dragon gent betwixt the Heads of the Eagle are 3 wns placed one above another, which are l to ſignify *Muſcovy*, and the Two Kingns of *Caſſan* and *Aſtracan.* They ſay it s the Tyrant *Iwan-Baſilewich*, who firſt de uſe of theſe Arms, to raiſe a belief he s deſcended from the ancient *Roman* Emrors; the word *Czar* ſignifying *Cæſar.* Others ake the Arms of *Muſcovy* to be Sable a Porl open of two Leaves, and as many Deecs Or.

The Armorial Enſign of the *Grand Seignior.*

The Arms of the Emperor of *Turkey* is, rt a Creſcent Argent, Creſted with a Turnt, charged with 3 Black Plumes of Herons ills, with this Motto, *Donec totum Impleat hem.*

The Arms of the King of *France*.

The Arms of the King of *France* are, Azure lowers de Liz Or, and the Arms of *Navarre*, ich he alſo bears. The Shield environed th the Collars of the Order of St. *Michael*, d the Holy Ghoſt. For Creſt a Helmet enely open, thereon a Crown with 8 Inarched yes, topt with a double Flower de Luce. e Supporters, 2 Angels habited as *Levites*;

the whole under a Pavilion Royal S
France, Lined Ermines with theſe Wor
omnibus Floribus elegi mihi Lilium. Lili
laborant neque nent.

the
in. The Arms of the King of *Spain* Qua
The Firſt Quarter Counterquartered, in th
and Fourth Gules a Caſtle tripple towe
bordered Azure, purfled Sable for *Caſtil*
the Second and Third, Argent a Lyon P
Gules Crowned Langued and Armed O
Leon. In the Second Great Quarter, Or
lets Gules for *Arragon*; Party Or 4
alſo Gules betwixt 2 Flaunches Argent, c
with as many Eagles Sable Membred,
and Crowned Azure for *Sicily.* Theſe 2
Quarters grafted in Baſe Argent a Po
nate Vert Stalk'd and Leaved of the

he Arms of the King of *Portugal* are, Ar- 5 Eſcutcheons Azure, each charged with any Beaſants placed in Saltier for *Portugal*, Shield border'd Gules charged with 7 ers Or for *Algarve*. The Creſt a Crown Under the 2 Flaunches, and the Baſe of Shield appear the Ends of 2 Croſſes; the Pattee Gules for the Order of Chriſt, the Flower de Luced Vert for the Order of The Motto changeable; but frequently *ro Rege & Grege*.

he 5 Eſcutcheons were born in Memory Kings, whom *Alphonſo* I. ſlew at the Bat- *Obrique*, *Anno* 1139. The Border and ers were added by *Alphonſo* III. on his ſtiture into the Kingdom of *Algarve* by *onſo* X. of *Caſtile*, *Anno* 1257. whoſe ghter, *Beatrix*, he then married.

he Arms of the King of *Denmark* are, Par- The Arms of the King of *Denmark*. f 3 and Coupe of 2, which make 12 Quar- In the Firſt, Or Semi of Hearts, Gules 3 s Paſſant Gardent in Pale Azure for *Den-* Second, A Lyon Rampant Crowned Armed Or, holding a Battle Axe Argent d of the 2d, for *Norway*. Thirdly, Gules on Paſſant Gardent Or, on 9 Hearts of the , in Feſs for *Gothland*. Fourthly, *Scho-* *viz.* Gules a Dragon Crowned Or. Fifth- Azure 3 Crowns Or for *Sweden*. Sixthly, a Paſchal Lamb Argent, ſupporting a of the ſame Marked with a Croſs Gules *Vuitland*. Seventhly, Or, 2 Lyons Paſſant ent Azure for *Sleſwick*. Eighthly, Gules a Crowned Argent for *Zeland*. Over theſe arters a great Croſs Argent (which is the nt Device of the Kingdom) on the Center hich is placed the Arms of *Dithmarſh*, *viz.* a Cavalier Armed Argent. Ninthly, Gules

the whole under a Pavilion Royal S
France, Lined Ermines with theſe Wo
omnibus Floribus elegi mihi Lilium. Lil
laborant neque nent.

the
in. The Arms of the King of *Spain* Qu
The Firſt Quarter Counterquartered, in t
and Fourth Gules a Caſtle tripple towe
bordered Azure, purfled Sable for *Caſtil*
the Second and Third, Argent a Lyon
Gules Crowned Langued and Armed
Leon. In the Second Great Quarter, O
lets Gules for *Arragon*; Party Or 4
alſo Gules betwixt 2 Flaunches Argent,
with as many Eagles Sable Membred,
and Crowned Azure for *Sicily.* Theſe
Quarters grafted in Baſe Argent a Pe
nate Vert Stalk'd and Leaved of th

he Arms of the King of *Portugal* are, Ar- 5 Eſcutcheons Azure, each charged with any Beaſants placed in Saltier for *Portugal*, Shield border'd Gules charged with 7 ers Or for *Algarve*. The Creſt a Crown Under the 2 Flaunches, and the Baſe of Shield appear the Ends of 2 Croſſes; the Pattee Gules for the Order of Chriſt, the r Flower de Luced Vert for the Order of . The Motto changeable; but frequently *ro Rege & Grege*.

he 5 Eſcutcheons were born in Memory Kings, whom *Alphonſo* I. ſlew at the Bat- f *Obrique*, *Anno* 1139. The Border and ers were added by *Alphonſo* III. on his ſtiture into the Kingdom of *Algarve* by *onſo* X. of *Caſtile*, *Anno* 1257. whoſe ghter, *Beatrix*, he then married.

he Arms of the King of *Denmark* are, Par- The Arms of the King of *Denmark*. f 3 and Coupe of 2, which make 12 Quar- In the Firſt, Or Semi of Hearts, Gules 3 ns Paſſant Gardent in Pale Azure for *Den-* . Second, A Lyon Rampant Crowned Armed Or, holding a Battle Axe Argent d of the 2d, for *Norway*. Thirdly, Gules on Paſſant Gardent Or, on 9 Hearts of the , in Feſs for *Gothland*. Fourthly, *Scho-viz.* Gules a Dragon Crowned Or. Fifth- Azure 3 Crowns Or for *Sweden*. Sixthly, a Paſchal Lamb Argent, ſupporting a of the ſame Marked with a Croſs Gules *uitland*. Seventhly, Or, 2 Lyons Paſſant ent Azure for *Sleſwick*. Eighthly, Gules a Crowned Argent for *Zeland*. Over theſe arters a great Croſs Argent (which is the nt Device of the Kingdom) on the Center ich is placed the Arms of *Dithmarſh*, *viz.* a Cavalier Armed Argent. Ninthly, Gules

Gule a Nettle-Leaf open and charged
Middle with a little Eſcutcheon, the whe
gent for *Holſtein.* Tenthly, Gules a C
Argent Gorged with a Crown Or for *Stor*
Eleventh, Gules 2 Feſſes Or for *Delmet*
Twelfthly, Gules a Croſs Patee Fitch
gent for *Oldenburgh.* The Shield furro
with the Collar of the Order of the Ele
The Creſt is a Crown flowered, raiſed w
Diadems terminating in a Mound of the
The Motto to his Device on the Reverſe
Medals is, *Pietas & Juſtitia coronant.*

he
n. The Arms of the King of *Sweden* are,
terly, in the 1ſt and 4th Azure, 3 Crow
Sweden. In the 2d and 3d Barry Argen
Azure a Lyon Or Crowned Gules for F
On the whole Qua:terly, in the 1ſt an

d Sable, a Bend Vert. For the Creſt a own raiſed with 8 ſmall Flowers, and clo- with 8 Semicircles, terminating in a Mound

The Shield is environed with the Order *France*; and the Motto, *Habent ſua ſidera es.*

he Bend, in the Coat of the Electorate of *ony*, was added by *Frederick Barbaroſſa*, n he inveſted *Bernard* of *Anhalt* in that edom; who deſiring ſome difference to be ed to his Arms to diſtinguiſh him from the ner Dukes, the Emperor took a Chaplet of : (he wore on his Head) and threw it art his Buckler, which was thereon pre- y Painted, *Teſte Heylin.*

The Arms of the King of *Pruſſia* are, Ar- t an Eagle Vert, Membred and Crowned , Langued Gules for *Pruſſia.* As Marquiſs *Brandenburg*, he bears divers Quarterings, taining ſeveral Alliances and Principalities, r all Azure a Scepter in Pale Or, which be- gs to the Electorſhip, a Triple Helm, and riple Creſt. The Arms of the King of *Pruſſia.*

The Arms of the Pope are thoſe of the Pope- n (which are put for a Creſt to their Gen- itial Arms) *viz.* The Papal Eſcutcheon les, conſiſting of a long Cap or Head-piece , ſurmounted with a Croſs Pearl, and gar- hed with 3 Royal Crowns, and 2 Keys of *Peter* placed in Saltier. The Arms of the *Pope.*

Boniface VIII. was the firſt that wore the *ra* with a double Crown; and *Urban* V. ade it in a Form of Cap, adorned with a iple Circle of Gold for ſome Myſtery con- ed therein. It's called the *Regnum*; becauſe denotes the Dignity and Power of Prieſt l Emperor.

Some

Some Popes had for their Deviſe, *manibus & mundo corde.*

f the e of The Arms of the Great Duke of is Or, 5 Torteauxes, 2, 2, and 1. Roundle in Chief Azure charged with ers de Liz Or.

f the oy. The Arms of the Duke of *Savoy*, a *Jeruſalem* Croſs Argent; and as Ki *prus*, he bears the Arms of that *viz.* Quarterly, 1. A. a Croſs Poten 4 Croſslets Or; 2. Barwiſe of 8 Piec and Azure, ſupporting a Lyon P crowned Or; 3. Or a Lyon Gules; a Lyon Gules. (*Teſte*, *Bara.*)

The *Jeruſalem* Croſs was given to *Magnus* by the Knights of *Rhodes*, A with theſe Letters in lieu of a Motto,

Argent charged in Feſs, with an Eſcut-
ı of Pretence Azure, ſupporting an Eagle
ıe Third, Membred and Crowned of the
ıd, over all in the Chief a Papal Crown
garniſhed with ſundry Gems Azure and
le; 3. as the firſt counterplaced.

ıe Arms of the Duke of *Parma* and *Pla-* The Arms of the Duke of *Parma* and *Placentia.*
z, are Or, 6 Flower de Luces Azure.

ıe Arms of the Duke of *Lorrain*, contains The Arms of the Duke of *Lorrain.*
r Eſcutcheons, over all Or, a Bend Gules
ged with 3 Alerions (Birds wanting Beaks
and Feet) Argent. The Deviſe an Arm-
land, iſſuing from the Clouds, and gra-
; a Sword with this Motto, *Fecit potentiam*
acchio ſuo.

ıe Arms of the Elector and Archbiſhop of The Arms of the Elector of *Mentz.*
z, is Gules a Cart-Wheel Or, and over
Electoral Cap.

ıe Wheel is born in remembrance of the
Elector of this Church, who being the Son
Carman, kept always (thro' Humility)
ıeel in his Chamber to mind him of his
ıction.

ıe Arms of the Elector and Archbiſhop of The Arms of the Archbiſhop of *Treves.*
s.———

ıe Arms of the Archbiſhoprick of *Cologn*, The Arms of *Cologn.*
Croſs Sable in a Field Argent.

ıe City of *Cologn*, in regard it can ſhew
Monuments of the three Kings who of-
to our Saviour, beareth Argent on a
Gules 3 Crowns Or.

ıe Arms of the Elector of *Bavaria*, are 3 The Arms of the Elector of *Bavaria.*
cheons joined together; 1. Sable a Lyon
ned Or for the Palatinate; 2. Fuſile in
Argent and Azure of 21 Pieces for *Ba-*
; 3. Gules an Imperial Globe Or for the
orate.

The

The *Bavarian* Arms, Paly Bendy
and Azure, were anciently born by th
of *Bavaria*, for that it reſembled the
coloured Caſſocks of the Ancient *Bo*
were thoſe *Gauls* that attempted the
of the Capitol.

Saxo- The Arms of the Elector of *Saxony*.
the King of *Poland*'s Arms.

Bran- The Arms of the Elector of *Bran*
See in the King of *Pruſſia*'s Arms.

ine's. The Arms of the Elector *Palatine* Q
in the 1ſt and 4th, Sable a Lyon Or
ed, Langued, and Armed, Gules for
latinate. In the 2d and 3d, Fuſile
Argent and Azure of 21 Pieces, with
Or, which belongs to the Electorate.

f the land. The Arms of the States of *Holland*
a Lyon Gules, holding with one Paw
aſs, and with the other a bundle of

Eagle diſplayed Sable, the ſecond a Key
ent, with this Deviſe, *Poſt Tenebras Lux.*
very Canton of *Switzerland* has its pecu- The Arms of the *Switz.* Cantons.
Coat of Arms, and Blazoned in *French*,
, 1. *Zurich*, *Porte d'Argent taille d'Azure.*
ſe Arms are ſupported by a Lyon ſtanding
ght, holding a Bowl or Roundure of the
ld, with his left Paw forward, and with
ther a Sword. 2. *Bern*, *Porte de Guelles*
Bande Or, *chargee d' un Ours Rampant de*
. The Supporter a Bear ſtanding upright,
ng on his Thigh a Sword girded. 3. *Lu-*
Porte d' Argent Party d' Azure. The
porter a naked *Switzer*, his Head and
ural Parts covered with Oaken Branches,
holding in his Right Hand a Bough of
ſame. 4. *Uri*, *Porte d' Or a une Teſte de*
de Sable, *acorne & bufle ou emboucle de*
lles: The Supporter a *Switzer* armed with
word and a Poniard. 5. *Switz*, *Porte de*
lles a la Croiſette de Argent au Quartier
che. The Supporter a *Switzer* armed,
ing a plain Croſs upon the Breaſt-Plate,
a Banner of the ſame. 6. *Undervald*,
te de Guelles coupe de Argent. The Sup-
ter a Griffin. 7. *Zug*, *Porte d' Argent a la*
d' Azur. The Supporter an armed *Swit-*
, bearing a Launce in his Left Hand.
Glarys, *Porte de Guelles au Saint Jaques*
rgent a ſon Bourdon d' Or. The Supporter
Angel. 9. *Baſile*, *Porte d' Argent al' Eſtuy*
Croſſe d' Eveſque de Sable. The Supporter
Dragon winged, with two Griffins Feet.
Friburgh, *Porte de Sable Coupe d' Argent.*
Supporter a Servant *Switzer*, without any
r Arms than a Sword. 11. *Soluthorn*,
te d' Argent coupe de Guelles. The Sup-
ter a *Switzer* armed, bearing a Banner of
the

the Canton. 12. *Schaffhauſen*, Por
un Belier Sautant de Sable Acorne
The Supporter a Ram. 13. *Appenz*
d' Argent al' Ours debout de Sable.
porter a Bear ſtanding upright,
Throat fuming or ſmoaking out.

of 's The Cham of *Tartary* in *Euro*
Crim Tartary) bears Or 3 Griffins S
ed Gules.

the of The Great *Cham* of *Tartary* in *A*
alſo Emperor of *China)* bears Or an
ble.

the ina. The Emperor of *China* bears Argen
a-Moors Heads placed in the front,
Veſted Gules. (But ſome ſay the A
Dragons.)

the l. The Arms of the Great *Mogul* of
ſaid to be Argent, Semi of Beaſan
As for particular Coats of Arms, p

ıe Arms of the Emperor of *Japan* (ac- The Arms of the Emperor of *Japan*.
ng to the Relations of the *Dutch Eaſt-* Company's Ambaſſadors) are, Or, 6 Argent in an Oval Shield, and bordered little Beaſants or Points of Gold. There ɔme that ſay his Arms are Sable 3 Tre- Argent.

ıe Arms of the Emperor of *Fez* and *Mo-* (in *Barbary* in *Africa*) are 3 Wheels Ar- in a Field . . . . . The Arms of the Emperor of *Morocco*.

ıe Arms of the Emperor of *Abyſſinia* (or *pia*) are a Lyon ſupporting a Croſs, with Motto, *Vicit Leo de Tribu Judæ*. The Arms of the Emperor of *Ethiopia*.

ıd this may ſuffice, there being no other ːes known to bear Arms (than what is In- l before) either in *Aſia*, *Africa*, or *Ame-* eſpecially the two latter, where the Peo- ıre very Illiterate, Rude, Barbarous, and ıowing of Religion, Arts, or Arms.

ır the Reader's Inſight into the Manner Nature of a Geneology, take here the Pe- ːe of the Ancient and Honourable Family *ırzon*.

ſ Heraldry are extant theſe

AUTHORS,

)ſwell, *Ferne*, *Bara*, *Chaſſaneus*, *Guillim's* ıldry, *Gerrard Leigh's Accidence of Armory*, ː's *Heraldry*, *Yorke's Heraldry*, *Dugdale's* nage, *Synopſis of Heraldry*, *Original and* ɔth *of Heraldry*; *Peacham*, in his *Compleat* ıleman. See alſo *Favel's Heraldry*.

Of PAINTING.

PAINTING doth borrow its Expe
from Geometry, and is called in
Pictura; being a wonderful Art, imitati
Shapes of Natural Things, by an accura
ſcription of the Lineaments, and apt Ch
Colours. In ancient Times it was acc
the Chief of all the Liberal Sciences
throughout all *Greece* taught only to th
dren of Noblemen in the Schools, bein
hibited the common ſort; nor was it
Eſteem among the *Romans*.

Painting is nothing elſe but Mute
and Poetry a Speaking Picture; for as
ſo Painters feign Hiſtories and Repreſen

s, Fierceneſs, and other Natural Qualities.
o Fiſh, making your Hand fit in their ge-
al Proportions; learn to give all Bodies
r true Shadows, according to their Emi-
ce and Concavity, to heighten and deepen,
he Body, *&c.* appeareth farther or nearer
Eye, or the Light, which is the chief Mat-
required in this Art. Alſo in Drapery,
: Garments and all manner of Stuffs, Cloth,
, their natural and proper Folds, leaving
:es within for the greater or leſſer Folds,
break them into leſſer, obſerving the clo-
the Garment ſits to the Body (as under
ments) the ſmaller muſt be the Folds, and
ık them off where occaſion requires it.
roportion (as is ſaid) is the Principal
ng to be learn'd, for which you may have
urſe to the Painting, and the Book of Sy-
ry and Proportions of *Albert Durer*, if
can obtain the ſight of either, being va-
ıle among Painters. For a bold Touch,
iety of Poſtures, curious and true Shadow,
tate *Goltzius*; for Natural Shadows, the
ntenance, Caſt and Form of the Eye,
ıth, *&c. Shadan Wierix*, and of *Criſpin de*
of *Utrecht*; or otherwiſe, of the beſt
ıts and Paintings you can come by, among
lections, or Maſters in Repute, *&c.*

Then ready in your Draught (for which
muſt provide Pens of Ravens Quills for
Strokes, and good dry Pencils, *&c.*) learn
nix your Colours. *Note*, That in Draw- Obſervations in Drawing, and Directions therein.
Faces, you muſt conſider in what Poſture
ıuſt be done, whether ſideways, forwards,
'ard, or downward, touching lightly the
tures, where the Eyes, Noſe, Mouth, and
n ought to be, obſerving well the Muſcles
he Face, which in ancient Perſons appear

much, and giving a due Proportion
part of the Face, and each Face diffe
as the Poſture alters, not forgetting
Geſtures, *&c.* In Drawing, begin fi
Head, and proceed by degrees 'till y
to the Feet, running it lightly ov
firſt; and as there ſeems occaſion,
the fulneſs, *&c.* In a Figure ſuppo
ſtanding, draw that Leg the Body
ſtraight and ſteady, or it will ſeem
and remember the Shadows accordi
Number of the Figures preſented cloſe
and the Nature of the Light comi
them.

Painting in Oyl requires greater J
and is more eſteemed generally than
in Water-Colours; but then it is
quick Diſpatch (for Gentlemen who

Reds, Red-Lead, Vermilion, Lake, Indian-Red, Ornatto-Carmine.

Indifferent Colours, are Umber, Spaniſh-Brown, Burnt-Spice, *&c.*

Theſe are the Chief to be laid in Oyl, but Ivory, Spruce, Oaker, and Umber muſt be burnt before they are ground; and as for Maſticot, Ultramarine, Vermillion, Smalt, and Orpiment, they may be tempered on your Palate without grinding; but are better with grinding, for that it mixes them better with the Oyl.

Your Pencils muſt be good, and of all ſizes; there muſt be a Palate, or Board to lay Colours on whilſt you uſe them; an Eaſle to place your Cloth upon or againſt, and a ſtraining Frame, to which it muſt be nailed; a Moll-Stick, or Stay, that's of heavy Wood, not ſubject to bend, about a Yard long, at one end tye a Ball of ravelled Cotton, with a Leather over it, ſo that with your Left Hand, holding it againſt the Work, you may ſupport your Right Arm whilſt Painting. Of Pencils, Palate, *&c.*

Of mixing your Colours, take Notice that to make Tempering of Colours.

A Violet-Colour, take Indico, White-Lead and Lake, mix them well, and the more or leſs of each Quantity will make it deeper or lighter.

A Lead-Colour, make of White and Indico, well mixed together.

A Bay-Colour, make of Spaniſh-Brown and White mixed.

A Scarlet-Colour, make of Lake, Red-Led, and a little Vermilion.

A Light-Green, make of Pink and Smalt; for a Middle and Graſs-Green, Verdigreece

d Pink; for a Deep and Sad-Green, Indico
d Pink.

A Purple-Colour, make of Spaniſh-Brown,
dico, and White, well mixed.

A Murrey-Colour, make of Lake and White.

A Flame-Colour, make of Red-Lead and
afticot, heightned with White.

By often tempering of Colours and Practice,
u will ſoon find out the reſt; remember to
y Yellows, Blues, Reds, and Greens upon a
hite Ground, which giveth them Life.

To begin a Picture, firſt draw the Eye, the
hite thereof make of White-Lead, with a
tle Charcoal-Black; having finiſhed it, leave
om the other Eye (in a Face full front) the
ſtance of an Eye, then draw the Proportion
the Noſe, the Compaſs of the Face, after
at make the Mouth, Ear, Hair, *&c.* After

ghtned or deepned at pleaſure; for the
k Circle of the Eye, take Umber, Sea-
-Black, and a little White mixed, For the Ball in the Eye.
ıd Ball in the Eye, take Lamp-Black and
digreaſe, for Lamp-Black will hardly dry
ıout it.

'or the Hands and the Shadows between the For the Hands.
gers, uſe the ſame Fleſh-Colours and Sha-
's as in the Face. If you would make a
h-Colour of a ſwarthy Complection, mix
White-Lead, Lake and Yellow-Oaker, and
the Shadows put in ſome Umber and Sea-
l-Black.

'or black Hair, take Lamb-Black only, For the Hair.
when you would have it brighter, mix it
h a little Umber, White and Red-Lead;
flaxen Hair, take Umber and White-Lead,
browner you would have it, put in the
e Umber, the whiter more White; but if
ter yet, add a little Sea-coal-Black; for
ow Hair, take Maſticot, Umber, Yellow-
er, and a little Red-Lead; if you would
it redder put in the more Lead and
ber; for white Hair, take half Ivory-
k, and half of Umber, and with a Knife
ber them well upon your Palat with White-
with more White, or Umber, or Ivory,
ıg or deepning it at pleaſure.

ır the Teeth, take White-Lead and Shadow
ith Charcoal-Black.

r this time your Skill will arrive to un-
and the compounding of other Colours for
ets, Garments, Armours, Ruffs, Lawns,
, Cloth, Leather, or what other Thing
uired in your Sculpture; or if not, have
arſe to the Works of thoſe Authors named
e end of this Treatiſe.

Of Painting.

For the greater and better Accompliſhment the Practitioner in this Art, as alſo for that often find People of good reaſonable Judgnt in the Worth of a Piece of Painting, are wanting in the Knowledge of the Figure or ſign, (eſpecially among a large Collection y can hardly tell two in ſix what they are ant for, unleſs aſſiſted by ſome Painter) refore alſo for their better Inſight (if they ire it) into Sculptures, characterized and awn for the *Roman* Gods, Goddeſſes, Empes, Kings, Sybils, Nymphs, Muſes, *&c.* e the following Explanations, omiting ſe of Hiſtory and Mythology, which are rious, and would make up Volumes beyond Compaſs of this Work. Yet let the Rea- *Note* the Paintings following are ſomenes painted with ſome other little differenperhaps, according to the Fancy of Pain-

Neptune with long hoary Hair, in a blue or Sea green Mantle, trim'd with Silver, riding in a blue Chariot drawn by monſtrous Fiſhes, or on a Dolphin's Back, with a Silver Trident in his Hand.

The *Phœnicians*, who were famous Merchants, and ſcarce knew any other God beſides their Gold. Painted their Idols with large Purſes by their Sides full of Money.

Pluto with long curled black Hair, in a Robe of Flame, or Cloth of Gold.

Bacchus with ſhort brown curled Hair, with a Leopard's Skin ſpotted, or in a green Mantle, with a red flufhing full Face, and a Wreath of Vine Branches.

Hymen with long yellow Hair, in a Purple or Saffron-colour'd Mantle, and a Torch in his Hand.

Vulcan is painted in a Scarlet Robe, having an Anvil by him.

Triton (*Neptune*'s Trumpeter) with a blue Skin, and in a Purple Mantle, having a Horn in his Hand, and the Tail of a Mermaid.

Cupid was painted by *Zeuxis*, the famous Painter of *Greece*, in a green Robe; he is generally painted naked, like a Youth, having a looſe playing Garment, Wings on his Back, his Eyes bound over, and a Bow and Quiver of Arrows.

Minos (one of the Judges of Hell) with long brown curled Hair, crowned with a gold Crown, his Robe blue and ſilver, his Buſkins of gold.

Momus (the Carping God) with a darkiſh Robe, his Beard and Hair party-colour'd.

Heathen GODDESSES, *how Painted.*

Heathen Goddeſſes, how Painted.

Juno (the Queen) with black Hair, and bright Eyes, adorned with a Sky-colour'd Mantle, or Pied, wrought with Gold and Peacocks Eyes, like the Orient Circles in a Peacock's Train.

Diana

Diana (of Chaſtity) with yellow H
raſs-green Mantle trim'd with Silv
ins Silver, a golden Bow and Q
inted Colours, and a Creſcent or Ne
on her Head. She is ſometimes
unting a Stag, at other times ſittin
egg'd, denoting Virginity.

Pallas in a blue Mantle imbroider
lver.

Venus with Gold-Hair, a beautifu
d attired with a Black, Scarlet, or
ured Robe, and *Cupid* her Son by her
nes Doves and Cypreſs-Trees are
r.

Ceres with yellow Hair, and a St
ured Mantle trim'd with Silver.

Tellus in a green Mantle.

Proſerpina (Queen of Hell) in whi
ents filled with Flames.

Numa Pompilius with white Hair, crowned with a Silver Bend, or Diadem, a Crimſon Robe trim'd with Gold, his Mantle yellow trim'd with Silver, his Buſkins, Watchet and Silver.

Æneas (the *Trojan* Prince) in a Purple Mantle trim'd with Gold.

Mahomet in Garments all of green, with a Turbant on his Head.

Guſtavus Adolphus (King of *Sweden*) with yellow Hair.

Roman Emperors with yellow Cuiraſſiers, imbroidered with Silver; the Labels of the Sleeves and ſhort Baſes of Watchet, the under Sleeves and long Stockings white, a Laurel Wreath with a Silver Jewel before, and Rays of Gold iſſuing from the Wreath.

German Emperors with a Violet-coloured Robe, Watchet, or Light-colour.

Dido (Queen of *Carthage*) in a Purple, or Scarlet Mantle; under her Garments a golden Quiver, her Hair yellow, tied up with Spangs, and Knots of Gold, a Dagger in her Breaſt, or in her Hand, and a ſmall Wound in her Boſom.

Cleopatra with large Pearls in her Ears, and an Aſp at her Arm.

Elizabeth (Queen of *England*) pale Faced, Light-brown Hair, grey Eyed, a Ruff about her Neck, and Fardingale about her Waſte.

King *Charles* I. with black Hair, a pecked Beard and Whiſkers.

PHILOSOPHERS *and* SIBYLLS, *how Painted.*

Pythagoras in white Garments, with a Crown Gold.

Empedocles in Violet, Murrey, or Purple, l ſo of the reſt of the *Grecian* Philoſophers.

Machiavel in *Italian* Robes, with a Paper ıled up in his Hand.

Eraſmus yellow Hair'd, grey Eyed, and newhat Pale.

Beza with white Hair.

Heraclitus in a weeping Reſemblance.

Democritus in a laughing Poſture.

Sibylla Agrippa, an old Woman in a Roſeal ırment.

Sibylla Lybica, an old Woman crowned with Garland of Flowers, in Purple Garments.

thriades, Parnaſſiades, Pegaſeides, Pierides, Pimpleides, Theſpiades, from Fountains, Regions and Hills (bearing thoſe Names) Sacred to the Muſes. The Muſes had their Names, as *Euſebius* ſaith, παρὰ τὸ μανθάνειν, which is to Inſtruct, becauſe they teach the moſt honeſt and laudable Diſcipline.

Clio is painted with a Coronet of Bays, in her Right Hand a Trumpet, in her Left a Book, upon which is ſometimes written *Hiſtoria.* Her Name is from Praiſe or Glory. Muſes, how Painted.

Euterpe, crowned with a Garland of Flowers, holding in each Hand ſundry Wind Inſtruments. Her Name is from giving Delight.

Thalia with a ſmiling Look, on her Temples a Coronet of Ivy, in a Mantle of Carnation, imbroidered with Silver-Twiſt and Gold-Spangles, and in her Left Hand a Vizard. Her Ivy ſhews ſhe is Miſtreſs of Comical Poeſy.

Calliope, on her Head a Coronet of Gold, on her Left Arm Garlands of Bays, in ſtore, for the Reward of Poets, and in her Right Hand three Books, on which is writ, *Homer, Virgil, Ovid.*

Melpomene, like a *Virago,* with Majeſtick and Grave Countenance, adorned on her Head with Pearls, Diamonds, and Rubies, holding in her Left Hand, Scepters with Crowns upon them, other Scepters and Crowns lying at her Feet; in her Right Hand a naked Poniard, on her a Mantle of changeable Crimſon. Her Gravity befits Tragick Poeſy.

Polyhymnia, drawn acting a Speech with her Fore-finger, all in White, her Hair hanging looſe about her Shoulders of an Orient Yellow, upon her Head a Garland of the choiceſt Jewels,

intermix'd with Flowers, and in her Left
nd a Book, on which is written *Suadere.*
r Name imports Memory, to whom the
etorician is beholden.

Erato with a ſweet and comely Viſage, her
mples girt with Mirtles and Roſes, bearing
Heart with an Ivory Key by her ſide. By
ſide alſo *Cupid* winged, with a lighted
rch, having at his Back his Bow and Qui-
s.

Terpſichore, a chearful Viſage, and playing
ſome Inſtrument; on her Head a Coronet
Feathers of ſundry Colours, but chiefly
een, in token of the Victory the Muſes got
r the Syrens, *&c.* by Singing.

Urania, a beautiful Lady, in an Azure
be, upon her Head a Coronet of bright
rs, in her Right Hand the Celeſtial Globe,

th a Scythe and an Hour-Glaſs. This is metimes taken for *Saturn.*

Fortune, a naked Lady, having an Enſign Sail over-ſhadowing her, ſtanding upon a be or Ball.

Equality, a Lady lighting two Torches at e.

Victory, a Lady clad all in Gold, in one Hand Helmet, in the other a Pomegranate. By Helmet is meant Force, by the Pomegra- e Unity of Wit and Counſel. *Auguſtus* w her with Wings ready to fly, ſtanding n a Globe with a Garland of Bays in one nd, in the other a Coronet of the Emperor, h *Imperator Cæſar.* In the Medals of *Octa-* ſhe is drawn with Wings, ſtanding on a g in one Hand a Palm, in the other a wn of Gold.

Peace, holding in her Hand a Wand or Rod rds the Earth over a hideous Serpent, her r Hand covering her Face, as loath to be- Strife or War. *Trajan* gave a Lady with Olive Branch in her Right Hand, and in her a *Cornucopia.* In the Medals of *Titus*, a y, in one Hand an Olive-Branch, the r leading a Lamb and a Wolf yoked by r Necks. The Olive is an Emblem of Emblem. e, as alſo is the Dove.

Providence lifting up both her Hands to ven, with theſe Words, *Providentia Deo-* . Or a Lady with a Scepter in her Right nd, a *Cornucopia* in her Left, and a Globe er Feet.

Concord, a Lady ſitting with a Charger in Right Hand for Sacrifice, a *Cornucopia* in Left, with the word *Concordia.* Or thus, a fair Virgin, holding in one Hand a negranate, in the other a Myrtle-Buſh. The

Nature

ture of theſe Trees are, that if planted a erable ſpace from one another, they will eet; and with twining, Embrace one another.

Fame, a Lady, or Angel clad in a thin and ht Garment, open to the middle Thigh that e might run the faſter; alſo her Wings large d Garments imbroidered with Eyes and rs, and blowing a Trumpet.

Vertue is repreſented by *Hercules* naked, th his Lyon's Skin, knotted Club, perform- ſome one of his Labours, as offering to ke a Dragon keeping an Apple-Tree, or lding in his Hand three golden Apples. He drawn naked to ſhew Virtue's Simplicity; the Dragon is meant all manner of Vi- s; by the Lyon's Skin, Magnanimity; his Oaken Club, Reaſon; by its Knottineſs,

Diſſimulation, a Lady wearing a Vizard of two Faces, in a long Robe of a changeable Colour, and in her Right Hand a Magpye.

Security, a Lady leaning againſt a Pillar before an Altar, with a Scepter in her Hand.

The NYMPHS, *how Drawn.*

NYMΦH, *Nympha*, a Bride, from νεὸν and φάος νεόβατος, as it were a freſh or new Creature, or as ſome will have it, from *Nympha quaſi Lympha*, by changing L into N after the *Dorick* Dialect. It is nothing elſe but an Allegory from the Vegetative Humidity which gives Life to Trees, Herbs, Plants, and Flowers, by which they grow and increaſe. They are feigned to be the Daughters of the Ocean, the Mother of Floods, and Goddeſſes of Fields, who have the Protection and Charge of Mountains, Meadows, Rivers, Trees, Herbs, and Woods. Nymphs, whence the Name.

Napæe, Nymphs of the Mountains, are drawn with a ſweet and gracious Aſpect, in green Mantles, girded about in the Middle, and upon their Heads, Garlands of Honeyſuckles, wild Roſes, Thyme, *&c.* Their Actions, dancing in a Ring, making Garlands or gathering Flowers. Nymphs, how Painted

Dryades, Nymphs of the Woods, not ſo fair as the *Napæe*, of a brown or tawny Complexion, Hair thick like Moſs, and their Attires of dark Green.

Naiades, Nymphs of the Floods, drawn beautiful, with Arms and Legs naked, their Hair clear as Chryſtal; upon their Heads, Garlands of Water-Creſſes, with red Leaves; their Actions, pouring out Water.

l' rl, viewing in her Hai
Sea Froth.

Iris, a Nymph with Ia
like a Semi-Circle, the Pl
divers Colours, her Hai
Eyes, her Breaſts like Cl
falling from her Body, a
(the Rainbow) or a *Flo*
makes her the Meſſenge
is taken for the Air, w
Cælo miſit Saturnia Juno.

Nymphæ Dianæ, cloath
their Garments girt abou
Shoulders naked, Bows i
rows by their Sides.

Aurora, the Morning,
tion Wings, and a y
Forehead a Star, and g
the Crown of her Hea
with a Viol of Dew in
Flowers in the other, v
the Earth.

Aſtronomy, with a Silver Creſcent on her Forehead, an Azure Mantle, a Watchet Scarf with golden Stars.

Faith, in white Garments, with a Cup of Gold.

Hope, in Blue, with a Silver Anchor.

Charity, in yellow Robes, on her Head a Tyre of Gold, with Precious Stones, her Chair Ivory.

Religion, in a Silver-Veil with a Mantle of White.

Innocence, in White, wholly.

Wiſdom, in white Robes, a blue Mantle ſeeded with Stars.

Law, in Purple Robes ſeeded with Stars, a Mantle of Carnation, fringed with Gold.

Government, all in Armour.

Confidence, in a Party-coloured Garment.

Modeſty, in Blue.

Felicity, in Purple, trim'd with Silver.

The *Soul*, in white Garments branched with Gold and Pearl, and crowned with a Garland of Roſes.

Laughter, in ſeveral Colours.

Envy, in a diſcoloured green Garment full of Eyes.

The Months of the Year how repreſented.

The Months of the Year, how Repreſented.

January, all in White like Snow or Hoar-Froſt, blowing his Fingers; in his Left Arm a Billet, and *Aquarius* ſtanding by his Side.

February, in a Dark Sky Colour, carrying in his Right Hand *Piſces*.

March, Tawney, with a fierce Look, a Helmet on his Head, leaning upon a Spade; in his Right Hand *Aries*, in his Left Almond Bloſſoms and Scions, and on his Arms a Baſket of Garden Seeds.

otner a Nightingal.

June, in a Mantle o
upon his Head a Corone
and Maiden-hair; in his
in his Right *Cancer*, a
Baſket of Summer-Fruit

July, in a Jacket of
Cherries; his Face and
his Head a Garland of
on his Shoulder a Scyth
Girdle, and by him a L

Auguſt, like a young
in a Flame coloured Rc
Garland of Wheat, or
Summer-Fruits, at his
Virgin.

September, with a che
Robe; on his Head a
Purple Grapes, in his
of Oats, with a Cornu
and other Summer-Fru

with the Fruit; in his Right Hand *Sagittarius*, and in his Left Bunches of Turnips and Parſnips.

December, with a horrid Aſpect, clad in an *Iriſh* Rug; upon his Head Three or Four Night Caps, and over them a *Turkiſh* Turbant, his Noſe red, and Beard hung with Iceicklcs, at his Back a Bundle of Holly and Ivy, holding in Furred Mittins a Goat.

The Four Winds how expreſſed.

The Winds how Painted.

Eurus, the *Eaſt* Wind, a Youth with puffed and blown Cheeks (which all the other Winds have) Wings upon his Shoulders, his Body like a Tawney *Moor*, upon his Head a red Sun.

Zephyrus the *Weſt* Wind. A Youth with a merry Look, holding in his Hand a Swan with Wings diſplayed and about to ſing, on his Head a Garland of all ſorts of Flowers.

Boreas the *North* Wind. An old Man with a horrid Look, his Hair and Beard covered with the Feet and Tail of a Serpent.

Auſter, the *South* Wind. Drawn with Head and Wings ſeeming Wet, a Pot or Urn pouring forth Water, with which deſcend Frogs, Graſhoppers and ſuch Creatures as are bred by Moiſture.

Rivers how Painted.

Rivers how Painted.

Tyber, as it ſtands expreſſed in the *Vatican* at *Rome*, like a goodly *Statua* of Marble, lying along (as all Rivers are) and holding under his Right Arm a She Wolf, with Two little Infants ſucking at her Teats, leaning upon an Urn or Pitcher, out of which iſſueth its Stream;

upon a Sphynx, from
its Stream, in his Left
of Fruits and Flowers
codile on the other ſid
ſmiling and pointing t
Tygris, like an old M
his ſide a Tyger.
Ganges, with the Sh
barous Savage, with b
and cruel Countenanc
having as other Floods
ſide a Rhinoceros.
Indus, with a Grave
a Garland of its Coun
a Camel: It is repre
as an Emblem of the I
Themiſis, has ſomet
Captain or Soldier l
Sword in his Right H
the Auguſt Tower; in
of all Fragrancies, wit
holds Four Crowns. a

The *Italians* have been moſt famous in the Art of Painting; of whom the Chief were *Michael Angelo*, *Raphael Urbin*, *Giotto*, *Albert Durer*, *Shadan*, *Wierex*, *Criſpin de Pas*, *Hans Holben*, who Painted the *Banquetting*-Houſe, now a Chapel at *Whitehall*. *Johannes Cimabus*, *Andrea Taffi*, *Gaddo Gaddi*, *Stephano Florentino*, *Petro Laurati* of *Siena*, *Bonamico Buffalmaco*, *Ambroſio Lorenzeti* a *Spaniard*, *Petro Cavallino* of *Rome*, *Philipo Lippi* a *Florentine*, &c. and others hereafter mentioned. Famous Painters.

The moſt eſteemed Piece in the World for Judgment and Art, is the Battle (commonly called the Battle of *Doomeſday*) fought in the Night between *Selym* I. Emperor of the *Turks*, and *Iſmael Sophi* King of *Perſia*. It was Painted by *Bellino*, and hangs in the Council Chamber at *Venice*. See in the Treatiſe of *MILITARY ART*, p. 237. Famous Paintings.

The rare Piece of *Michael Angelo*'s, called, *The Day of Judgment*; a moſt extraordinary Thing, and ſtill to be ſeen at *Rome*.

Another admirable Piece done by a *Black-ſmith*, falling in Love with a *Painter*'s Daughter who had vowed never to marry any but of her Father's Profeſſion) he therefore left off his Trade and fell to Painting, Limning out this Piece; for which he got his loved Miſtreſs, and was proffered 7000 Crowns for that one Piece. It is to be ſeen in St. *George*'s or our *Lady*'s Church in *Antwerp*.

Xeuxes and *Parrhaſius*, Two Eminent Painters, contending both for Excellency; the Firſt ſhewed Painted Grapes ſo like, that the Birds flew down to feed upon them: The other only ſhewed a Coverlet, which he Painted, and was ſo rarely done, that when *Xeuxes* went to put it aſide (for *Parrhaſius* told him his Piece

Workmanſhip was ſtanding behind that
rtain) and found his Error, he was forced
yield the Victory to the Latter; for where-
he had only deceived the Birds, but *Par-*
ſius had deceived an Artiſt.

Pliny relates, that, in the Plays of *Claudius*,
re was ſuch excellent Painting, that the
ows have flown to the Repreſentation of
es, miſtaking them for the Tops of Houſes.

The ſame *Pliny* relates, it had been found
Experience, that the Singing of Birds had
n ſtinted by the Sight of a Painted Dragon.

Apelles drew a Horſe ſo exact to the Life,
t when *Alexander* ſeemed not to admire the
rk, *Apelles* deſired a Horſe to be brought,
ich immediately fell a Neighing; wherefore
told *Alexander*, his Horſe underſtood Pain-
g better than himſelf.

This *Apelles* alſo drew the famous *Venus*

round than Giotto's *Circle.* He wrought alſo for Pope *Clement* V. and was alſo ſent for by *Robert*, King of *Naples*. Painting many fine Pieces.

Andreas Orgagna, drew the admirable Piece of, *The Day of Judgment*, wherein he put his Foes in Hell; and particularly one *Ceccho de Aſcoli*, who was Painted ſo like, that all the Children and Boys diſcerned it to be the ſame Man.

Aſcoli complained of this Affront to the Pope; and Money was offered *Orgagna*, to put him out, but he would not, ſaying, *There is no Redemption from Hell.*

Thomas Maſſaccio's St. *Peter* taking a Penny out of the Fiſh's Mouth, when he payed it for Toll, is famous.

A Picture of *Bularchus*, a *Painter*, was valued at its Weight in Gold.

Cæſar paid to *Timomachus* 80 Talents of Gold, about 14000 *l. Sterling*, for the Pictures of *Ajax* and *Medea*.

The Cuſtom of Painting a Pedlar with a Pack at his Back, in the Tavern Windows, *&c.* at *Sopham* in *Norfolk*; ſee in *DREAMS*.

See the Painted Rarities, mentioned in our Catalogue of Rarities, repoſited in *Greſham*-College

AUTHORS.

Leon Baptiſta Alberti. Peacham's *Gentleman's Exerciſe*. Brown's *Art of Painting*. Salmon's *Polygraphice*. Dryden's *Art of Painting*. *The Lives of the Painters.*

Of

ood co ani ites a Red
ter wherein it is boiled, wh
a Glaſs with a little diſtill
it, is immediately turned i
Colour; from which ſudd
reaſon to conclude that a
from the various Textur
the different Reflection o
they call that a

Black. *Black* Body which extin
the Rays of Light, and th
carry the Reſemblance of I

Blue. *Blue* Colour, which app
ture of Black, is that whi
Rays.

White. A *White* Body is that w
to the Eyes in the ſame o
That is a

Red. *Red* Body, which, in r
Light, makes the Particl
ſtrongly about their own
turns round by being ſtru

Green ſlower than thoſe that effect a Yellow Colour. So that Blue, Yellow, Green and Red, conſiſt in their different Swiftneſs or Slowneſs of their whirling about, exceeding that of their proceſs or moving forwards. And the Green.

Purple Colour is nothing but a Mixture of Blue with the Red Colour; which imparts its Brightneſs to the former. So the Light of Two Candles, One in a Lanthorn of Blue Glaſs, the other in a Lanthorn of Red Glaſs, uniting their Rays, reflect and conſtitute a Purple Colour: So that it may be concluded thoſe are Black Bodies whoſe Surface is proper to extinguiſh and quaſh the Rays of Light; and that thoſe are White whoſe Surface hath the Property to diminiſh the Light by reflecting it from all Sides, and with this Reaſon it is ſaid, That Black and White are the Ground of all other Colours. Purple. See in *Animals* and *Inventions*. Black and White the Ground of all Colours.

All Colours are Light or Obſcure; and they all (except Black) may be called Light as more or leſs partaking thereof. In White is moſt Light; and Shadow or Darkneſs leaſt or none at all. In Blue is the contrary; moſt Shadow and leſs Light. In Yellow is inward Light and leſs Obſcurity. In Purple is the contrary; inward Obſcurity and leſs Light. In Green is Equality of Light and Darkneſs. In Light Red is more Light than Obſcurity. So that for too much want of Obſcurity cometh Whiteneſs; and for too much want of White or Lightneſs cometh Blackneſs: And a Cloath dyed Yellow, being put into the Blue Woaded Veſſel, maketh an excellent Green.

There was Light and Darkneſs before the Planet of the Sun was created, albeit the Diſtinction between Day and Night is aſcribed to the Sun. Now the Moon hath no Light but what See *Geneſis* Cap. 1.

t the Sun doth impart unto her; a
ours of the Rainbow, in the Day tim
produced by the Four Elements, d
ve theſe Colours to be ſo in Nature: V
he Philoſophers have given a Reaſon a
y. See the Treatiſe of *METEORS*.
ſidering the Curioſity of them, and
of *Ariſtotle*, it is ſtrange (ſaith C
ynes, in his *Lex Mercatoria*, p. 41.
y have not made mention of the Colo
Rainbow in the Night time when the
t full and oppoſite to the Sun; whi
s nevertheleſs take a Reflection upo
uds, and Obſcurity of the Night, far
from the Colour of the Rainbow in th
e upon the Declination of the Sun,
ch that albeit all Colours muſt be diſ
Light, and ſo adiudged accordingly

The *Italians*, by weighing and meaſuring of their Silk Wares, ſay, A Yard of Satin truly made, weigheth Four Ounces; if it be above, they take the ſame to be over-gummed.

The Salts of Natural Bodies carry a powerful Stroke in the Tincture and Varniſh of all Things, as is viſible in the Art of Dying; where they advance and graduate their Colours with Salt. For the Decoction of Simples, which bear the viſible Colours of Bodies decocted, are dead and evanid without the Commixion of Alom, Argol, and the like; and this is apparent in Chymical Preparations. So Cinabar becomes Red by the acide Exhalation of Sulphur, which otherwiſe preſents a pure and niveous White. So Spirit of Salt, upon a Blue Paper, make an orient Red. So Tartar or Vitriol, upon an Infuſion of Violets, affords a delightful Crimſon. Thus it is wonderful what Variety of orient Greens the Spirits of Saltpeter will project, and eſpecially if they be kept in a Glaſs while they pierce the Sides thereof. Perhaps, from the like Spirits in the Earth, the Plants thereof may acquire their Verdure. Thus Saltpeter, Armoniack and Mineral Spirits, emit delectable and various Colours; and common *Aqua Fortis*, will, in ſome Green and narrow mouth'd Glaſſes about the Verges thereof, ſend forth a deep Blue. See in the Treatiſe of *CHYMISTRY*, *Vol.* 1. *pag.*

Whence the Colours of Plants, &c. may ariſe.

Make a ſmall Table of *Biſmuthum* (which ſome count Black Lead, Dr. *Jordan*, Tinglaſs or the Steril Marchaſite of Lead) and on the one Extream, place a Piece of Amber, on the other a Piece of Green Vitriol; the Vitriol will in a Moment loſe its Colour and Acidity. Both which are familiarly obſervable in the Pre-

drop ſome Oil of *Tartar* in
it will be turned into In
Tincture of Violets infuſ
Vitriol becomes of a Purp
put ſome Drops of the S
and it will be changed in
Anniſeed mixed with Oyl
Spirit of Turpentine pou
Lead or Calcined Lead, p
cture. Spirit of Nitre tu
as White as Milk, and
Red if digeſted a while w

Madders Root held in the Hand will dye the Urine Red; Woad will dye the Skin.

Moſt Powders are Whi
or ground ſmall.

Spirit of Vitriol white

Colours in the Peacock's Tail, how cauſed.

The Cauſe of Variati
Peacocks Tail, and the N
Solary Irradiations, and
on and Refraction of th
Hairs of their Feathers,
rious Admiſſion of the L

A ſort of Wood

Athanaſius Kircherus,

ſuch an Exactneſs of Feeling, that by the Touch of his Hand, he could diſtinguiſh ſeveral Colours.

It is found that Grains of *Indian* Sand beheld through a Microſcope are not only pellucid or clear, but ſparkle like Diamonds; but when by being heap'd together, they can no longer give free paſſage to the Light they ſhew opake or duſky. I have by me ſome Sand of the Natural Colour, which is as Green as Graſs, given me by Mr. *Laud Dayly* before his Death, which he told me came from the Shoar of the Kingdom of *Aſtracan*, in the *Mogul*'s Empire.

Of the ART *of* DYING.

This Art was firſt found out (as ſome write) at *Tyre*, by the Accident of a Dog ſeizing on the Fiſh called *Conchilis* or *Purpura*; which ſtained the Dog's Mouth of that Colour. An Art it is of great Benefit and Profit to ſome, as well as of great Uſe to others.

In *Baker's Cave*, in *New England*, is found the Scarlet Muſcle, whoſe Purple Vein being pricked with a Needle, yields Juice which gives a deep Purple dye not to be waſhed out.

To dye Silk of a Sanguine Colour, the Dyers take a Pound of Green Weed, as much Alom, bruiſing them, and pouring on them fair Water. To this they add half a Pound of raſped *Braſil*, and ſet them over a gentle Fire to mix them well. Then they may put in the Silk, ſuffering it to Seeth therein, and ſo continue to ſtrengthen the Dye, by dipping, till it hath taken the Colour perfectly. Then raiſe it with Lees, Woodaſhes, or Oak Bark; and ſo when it is cleared with fair Water, dye it and preſs it.

To Dye Sanguine.

To dye Silk a deep Carnation. Take White Gall and Alom, the Herb called *Foli* well dryed, about one Pound; to which put two Ounces of

To Dye Carnation.

Spaniſh

niſh Red, four of *Indian* Lake, and boil
m in fair Water over a gentle Fire, and
en they come to a height of Tincture, let
Silks have good Dippings three or four
es.

To dye Silk Roſe-red. To every four
rds and Half you would have dyed, let
m take a Pound and Half of Nutgals, and
them in fair Water unbruiſed two Hours,
t the Water, then put in the Silk or Linen
ing it ſoak four Hours, then wring it dry,
heat it in fair Water, wherein Alom hath
n diſſolved, then put in Half a Pound of
ſil Powder, and a Pound of Green Weed,
ſo by dipping in gentle Heats, the Colour
l heighten.

To dye Purple. If it be Silk, to each Pound
it, take an Ounce of Alom, and a Gallon

dip the Velvet or what other things are deſigned for deep Blacks.

To dye Feathers of any Colour, you muſt take notice, To dye Feathers.

For Blue, let your Dye be *Indico*, and Bice.

For Black, Galls and Logwood, with a little Copperas.

For Purple, Lake and *Indico*.

For Carnation, Smalt and Vermillion.

For Yellow, Yellow Berries, and Saffron diſſolving a little *Tartar* in the Water.

For Orange, Turmerick and Red Lead.

And this may ſuffice for a brief Inſpection into the Art of dying Colours in Silks, Cloaths, Feathers, Briſtles, *&c.*

Dying have wrote theſe

AUTHORS.

Boyl *of Colours*. *In Lex Mercatoria.*

Of OPTICKS.

OPTICA gives us an account of various Appearances of Objects, by the means of Glaſſes.

Glaſs is made of fine Sand, and the Aſhes of Chali or Fearn, the Aſhes of which Herbs are moſt proper becauſe they abound with abundance of fixt Salts, which are very porous and ſpungy; ſo that when theſe Aſhes are put into a violent Fire, their Corners are conſumed by it, and by theſe means the Surface of their Parts are made ſo ſmooth and even, that they touch in more Points than they did before, and afford Original Ingredients in Glaſs.

See Sands mentioned in the Catalogue of Rarieties in *Groſham-College*. Rarieties.

free Paſſage to the Beams of Light, and
nnot be rendred dark or opaque without the
ixture of ſome forreign Matter. Glaſſes are
ſo made of the ſtuff called *Soda Bariglia* or
aſſacote; which ſtuff is certain Sea Weeds
rnt, formerly to be ſeen in the Glaſs-houſes.
Smyrna was a falſe Mirrour, which made
autiful Faces ſeem to be deformed, and ugly
es ſeem amiable; as ſaith *Pauſanias*.

Glaſs Windows were firſt brought from *France*
to *Britany*, about *Anno* 674. at the Building
the Monaſtery of St. *Peter* by *Benedict* the
onk. *Creſſy*, Lib. 18. cap. 11. See more in
NVENTIONS.

Optica treats of the ſtreight Ray; *Catoptricks*
the reflected; *Dioptricks* of the refracted or
oken Ray.

Theſe following Definitions belong to the

The convergent Rays are thoſe, that depar- Covergent Rays.
ing from the Object come together. Such are
he Rays of divers Parts of the Object, which
ut one another in the Chryſtalline Humour.
The divergent Rays departing from the Object Divergent Rays.
owards the Eye, recede from one another.
The Rays of every point of the Object are di-
ergent till they come to the Chryſtalline Hu-
nour, beyond which they come together again
owards the Retina.

No viſible Object is ſeen at firſt altogether Propoſitions in Opticks.
nd perfectly.

Magnitudes being in the ſame ſtraight Line,
he remoter ſeem to be the leſſer.

Parallel Intervals ſeem to be nearer one ano-
her, the farther they are from the Eye.

Rectangle Magnitudes, being ſeen at a di-
ſtance, ſeem to be round.

Equal Magnitudes being under the Eye,
thoſe that are furtheſt from the Eye, ſeem to
be higheſt.

Catoptrick is derived from Κάτοπτρον a Look- Catoptrick.
ing-Glaſs; becauſe it treats of the Rays re-
flected by poliſhed Bodies.

If a Ray falling upon a Glaſs make equal Propoſitions in Catoptricks
Angles, 'tis reflected into it ſelf. 2d, Rays
reflected from plain and convex Glaſſes, do
neither come together, nor are equi-diſtant.
3d, Heighths and Depths ſeem to be overturned
in convex Glaſſes. 4th, In convex Glaſſes,
what is on the Left Hand appears to be on the
Right; and what is on the Right Hand appears
to be on the Left. 5th, If the Eye were in the
Centre of a Concave Glaſs, it would ſee no-
thing but it ſelf.

Dioptricks ſhews the apparent Changes of Dioptricks.
our Sight, and of viſible Objects looked into
through Proſpective Glaſſes.

When a Ray paſſeth through a Thin Middle
to a Thicker, it breaks in the Superficies of
e Thicker towards the Perpendicular Line;
nd when it paſſeth through a Thick Middle or
ledium to a Thinner, it deviates from the
erpendicular Line, which this obvious expe-
ment Demonſtrates. Lay an Image or any
her viſible Object, in the Bottom of a Veſſel,
nd then go back till it vaniſh out of your
ght; now if you fill this Veſſel with Water,
ſhall preſently be viſible again, becauſe the
ay coming from your Eye, breaks down-
ards in the Superficies of the Water, as the
ne going ſtraight up to the Superficies of the
ater, deviates from the Perpendicular becauſe
the Thinner Air towards the Eye, which
nders the Object viſible again.

It ſheweth the Influence of Glaſſes applied

the Object be a Surface, Plane or Spherical, the visual Rays represent a Pyramide.

Ichnography, is the Pourtraiture of the Platform or Plane upon which we would raise any thing. Ichnography.

Orthography, is the Pourtraiture of the Forepart of the Object. Orthography.

Scenography, represents the Object wholly Elevated and Perfect, with all its Dimensions and Umbrages on all sides. Scenography.

The Horizontal Line in Perspective, is taken from the Heighth of our Eye. This is the Chief Piece of the Picture, and which ought to be the Rule of the Dimensions and Heighth of the Figure.

The Point of Perspective or Sight, is made by the Centrical Ray above the Horizon.

Spectacles of Chrystal, cut with divers Angles Diamond-wise, do make a marvellous Multiplication of the Appearances; for looking towards a House it becomes as a Town; an armed Man seems a whole Company; caused solely by the Diversity of Refractions: For as many Plains as there are on the Outside of the Spectacles, so many times will the Object be multiplied in the Appearance, because of divers Images cast into the Eye. Again, there are Spectacles made which do diminish the Thing seen very much, and bring it to a fair Perspective Form, especially if one look upon a fair Garden-Plat, a great Walk, a great Court, *&c.* The Industry of the most exquisite Painter cannot excel in expressing the lively and exact Form which this Glass will represent. The Cause is from the Glasses of these Spectacles being Hollow and Thinner in the Middle than at the Edges, by which the Visual Angle is made lesser. If these Spectacles be placed Spectacles of a curious Nature.

on a Window, one may ſee thoſe that paſs and fro in the Streets, without being ſeen of y; for their Property is to raiſe up the jects that it looks upon.

The Tyrant Emperor *Domitian*, being fear- and ſuſpicious of all Men, made the Walls his Galleries where he uſed to Walk, to be full of a kind of bright and clear Stone cal- *Phengites*, wherein he might ſee whatever as done behind or about him. Yet could it t ſecure him from the ſcarfed Arm; and be- g ſlain by his own Chamberlains.

The common ſimple Perſpective Glaſſes give ly ſome help to an aged Eye; but *Galileus*'s mirable Glaſs ſhews us, the ſpotted and adowed opacous Bodies found about the Sun; he new Planets that accompany *Saturn* and *piter*, or his Satellites: Alſo, in *Venus* is n, the New, Full and Quartile Increaſe, as

have your content. See the *Rainbow* explained in the Treatiſe of *METEORS*, *Vol.* 1. *p.* 426. and in this *Vol. p.* 444.

To blow up a Mine at a certain Hour of the Day, is only to place a Burning Glaſs, or Bowl of Chryſtal over Powder or other combuſtible Matter, ſo that the Sun caſting his Beams through the Glaſs will fire it off. Therefore is to be obſerved the Sun's Motion, and at what Hour the Sun's Rays fall direct thereon, before it be ſet; for thereby will you make your Time certain for its Execution.

For a Mine to blow up at a certain Hour.

Burning-Glaſſes, See in *p.* 161.

Maginus ſaith, To write Letters ſufficiently large, but inverſed upon the Surface of Glaſs, with ſome kind of Colour (or Wax) placing the Glaſs to the Sun, the Letters which are written there will be reflected upon a Wall, *&c.* if in obſcurity or ſhadowed, whereby a Friend may read your Mind at a diſtance. See *p.* 159, 164, and 338.

To reflect Letters on a Wall, *&c.* by means of the Sun.

To ſee in a Chamber that which is done in the Street without being ſeen. A Glaſs muſt be ſo diſpoſed that the Line upon which the Images come on the Glaſs make the Angle of Incidence equal to that Angle of Reflection.

To ſee without being ſeen.

To ſee three or four Images from one and the ſame Candle Preſent a Candle upon a plain Glaſs, and look ſlaunting to it, ſo that the Candle and the Glaſs be near in a Right Line.

To ſee three or four Images from one Candle.

You may have a fine Experiment if you place Two Glaſſes together that they may make an Acute Angle, and ſo the Leſſer the Angle is, the more Apparences you will ſee, the one Direct, the other Inverſed; the one Approaching, and the other Retiring.

To ſee an Image within a Glaſs without knowing from whence it came will give Aſtoniſhment; but 'tis only to place a Glaſs higher

To make an Image be ſeen without knowing whence it comes

n the Beholder, and right againſt it an age, ſo it reſteth not upon the Beholder, but teth the Image reflection upwards. Then ce another Object, ſo that it reflect or caſt Image downward to the Eye of the Specta-, without perceiving it being hid behind nething; for then the Glaſs will repreſent a te contrary Thing, either that which is be- e the Glaſs, or that which is about it, to t, the other hidden Object.

If there were painted an Image upon a Glaſs, e a common Looking-Glaſs before it be co- red with Quickſilver, and made up in a ame, if ſet in an obſcure Place, it will be ficiently Pleaſant, and give no ſmall Aſto- hment whence the Cauſe proceeds of ſuch ppearance.

Place a Glaſs near the Floor of a Chamber, d make a Hole through the Place under the

is thicker in the Middle than at the Edge (ſuch as is the common Burning-Glaſſes) the Images will all appear upon the Paper or Cloth according to their Natural Colours. But *Note*, All Objects will appear inverſed (becauſe the Species do Interſect one another in the Hole, ſo that the Species of the Feet aſcend, and thoſe of the Head deſcend) to repreſent them therefore in their right order, is by diſpoſing another Convex Glaſs between the Paper and the Glaſs. This Experiment is of great Uſe for *Painters*, who would take the Scutch or ſmall Topographical Deſcription of fine Seats of Pleaſure, a fine Park at diſtance, *&c.* all being in due Proportion; and they may trace the Reflection upon the Paper, whereby they have their Landſkip, Proſpect, *&c.* with ſmall Trouble and great Exactneſs. Of Glaſs Dyals, ſee in *pag.* 165.

Of the *Weather-Glaſs*, ſee *Air* in our Treatiſe of *ELEMENTS*. A Glaſs Sphere, ſee in *GEOMETRY*, *p.* 158.

To ſee into the Camp of an Enemy, *&c.*

By means of a Convex Glaſs, and a Lighted Torch placed in the Point of Concourſe or Inflammation (which is near the fourth Part of the Diameter) the Light will be reverberated into the Glaſs, and will be caſt back again very far by parallel Lines, making ſo great a Light that one may ſee into the Camp of an Enemy, or read the Letter of a Friend (if writ in very large black Characters) at a diſtance, or an Epitaph placed high and ſhelving, *&c.*

To ſee how a Wig or other Thing ſits upon us behind.

To ſee how a long Wig or other Thing ſits behind us. Take but a Glaſs in your Hand, and whilſt you hold that before your Face, turn your Back to the great Hanging Glaſs, and you may ſee quite behind how every thing is behind you.

See the Rareties in Painting, mentioned in Catalogue of Rareties, repoſited in *Gre-n* Colledge. *Rareties.*

Of *Opticks*, have wrote theſe following

AUTHORS,

Euclid, *Aquilonius*, *Scheiner*, *Vitellio*, *Heri-e*, *Ariſtotle*, *Hipparchus*, *Galen*, *Plato*, *Por-rius*. See *Alhazen* of *Opticks*, *Henry Van en*'s *Mathematical Recreations*, Diſcourſe of *vex Glaſſes*.

Of ANGLING.

THIS Art was in great Eſteem among the Ancient *Romans*, (tho' Fiſh were always [illegible] in ſacrificing to their Deities) in ſo

ſeveral Kinds, and not many more of the Fowls of the Air; but no Man can reckon the ſeveral Kinds of Fiſh and Creatures of the Sea.

Fiſh may be taken either with a *Hook*, *Nets*, *Wheels*, *Nooſes*, *Jackſpears*, or *Darts*; and *Angling* is either at the top of the Water, with a *Fly*, or at the bottom with *Worms* and other *Baits*. With a *Fly*, or otherwiſe the *Haſel-Rod*, is to be choſe before the *Cane*, whoſe Joints doth ſometimes fail, and deceive the *Angler*, in ſtriking at his *Bait*. The *Three Hair Line*, (if the Hairs be taken from a good Horſe that is ſtrong and fleſhy) is ſufficient for ſmall *Fiſh*, but for the greater ſort, we uſe *Lines* of ſix or eight Hairs. The *Floats* are of divers kinds; but the *Float* made of two Swan's Quills one in the other, ſo it take no Water, or Buſtard's Quills, are eſteemed the Neateſt. The *Hooks* are to be fit to the ſize of your *Fiſh* you would catch, ſmall for the ſmall *Fiſh*, great for the bigger *Fiſh*.

The Rod. Line. Floats. Hooks.

The *Baits* for *Fiſh* may be diſtinguiſhed into three kinds, the *Live Baits*, the *Dead Baits*, and the *Artificial Baits*.

Baits.

Live Baits are *Worms* of all kind, of which the *Red Worm* is the beſt; the *Maggot* (or *Gentle*) the *Bobb*, the *Doare*, *Brown Flies*, *Frogs*, *Graſhoppers*, *Hornet*, *Waſps*, *Bees*, *Snails*, ſmall *Roches*, *Bleaks*, *Gudgeons*, or *Loches*, *Mynnows*, &c. Theſe Things muſt not be kept all together, but every Kind by it ſelf, and feed them with ſuch Things they delighted in when they had their Liberty; the *Red Worm* is beſt preſerved in a Bag of Red Woollen Cloth, and put therein *Ground Moſs* or *Fennel* cut ſmall, in which they will ſcour themſelves; but if you mix *Earth* that is black and fat, or

Live Baits.

Neats

ats Dung therein, they will live the
ne *Maggots*, or *Gentles*, feed with
et, or *Livers* of any Beaſts, ſhread
t to ſcour or clean them, let them hav
am, or *Bran*, and keep them warm th
e the longer. For *Frogs* and *Graſ*
t *Moſs* is beſt to keep them in; an
u *Angle* with a *Frog*, cut off their l
Knees, and the *Graſhopper*'s Wings n
dy. For the *Bobb*, *Cadiſworm*, *Canke*
ner *Worms*, you may keep them w
me Things you take them with.
Dead Baits are *Paſts* of all kind,
oods of *Waſps* dried or undried, the
ood of Sheep, *Cheeſe*, *Brambleberries*
eds, *Cherries*, and ſuch like.
Artificial Baits are your made *Paſts*,
ſorts and ſhapes, (made of Silk an
ers about the *Hooks*) fitting the ſeve
ns and Times of the Year which hei

ſon you muſt obſerve what *Flies* haunt the Waters for Seaſons of the Year. Theſe reſembling *Flies*, may be made with Cotton, Wooll, Silk, or Feathers.

For the Seaſons of the Year in which we may uſe theſe *Baits*, *Note*, The *Red Worm* will ſerve for ſmall *Fiſh* all the Year, and *Snails* will ſerve the *Pike* and *Trout* in any Seaſon. The Seaſons of the Year for theſe Baits.

In *March* uſe *Frogs*, and for the *Trout* the *Dun Fly*.

In *April*, Sheeps *Blood* and *Cheeſe*, and the *Stone Fly*.

In *May*, the *Bobbe* and *Dorre*, dried *Waſps*, *Red* and *Yellow Flies*, and *Paſts*.

In *June*, *Brown Flies*, the *Black* and *Mooriſh Fly*, and *Paſts*.

In *July*, the *Maggot* or *Gentle*, *Hornets*, *Waſps* and *Bees*, the *Shell-Fly*, and all *Paſts*.

In *Auguſt*, *Snails* for the *Roch*, *Bleak*, *Gudgeon* and *Minnow*; the *Clowdy Fly* is good this Month.

In *September* and the Fall of the Leaf, *Graſhoppers*, *Brambleberries*, *Corn*, and *Seeds*.

Now to know what *Fiſh* delight in theſe *Baits*, *Note*,

The *Gudgeon*, *Roch* and *Dace*, are *Fiſh* of eager Bite, and therefore ſooneſt deceived, and will feed at the *Red Worm*, *Gentle*, or *Paſts*. The *Eel* and *Flounder* are greedy *Fiſh* alſo, and Bite at the *Red Worm*; as alſo doth the *Perch*, which ſwims about the midſt of the Water. The *Tench* is a *Fiſh* that lurketh always at the bottom, where the Ouze or Mud is thickeſt, and is to be caught with the great *Red Worm*, and ſweet *Paſts*, the browner the better, being mix'd with Sheeps *Blood*; but 'tis beſt Angling for him in the height of Summer, for at all other Times he bites ſparingly. The *Bream* delights Baits for Gudgeon, Roch, Dace, Eel, Flounder, Perch, Tench, Breame, Chevin, Trout, Carp, Salmon, Schad, Herring.

lights in all ſorts of *Worms*, *Butterflies*, and *reenflies*, *Paſte* of all the Crums of white *ead* and the Brood of *Waſps*; the beſt Seaſon catch this *Fiſh* is from the firſt of *March* ll the laſt of *Auguſt*. The *Chevin* and *Trout* e ſometimes taken at the top of the Water th *Flies*, *Snails*, and *Graſhoppers*, at other nes at the bottom with the great *Red Worm*. ne *Carp* is a dainty *Fiſh* to bite, and ſtrong ıſt be the *Line* that takes him. He is to be ticed by Baiting the Ground with courſe *ſte*, and the time of Angling for it, is ear- in the Morning, or elſe in the Evening, for en is its time of feeding. He ſeldom refuſeth e *Red Worm* in *March*, the *Cadis* in *June*, the *Graſhopper* in *July*, *Auguſt*, and *Septem-*. The *Salmon* is a noble *Fiſh*, and is to be

and, can better diſcern (by a kind of blueiſh olour the *Fiſh* make in the Water) where ey are, than thoſe that be in the Ships. hey are called *Huers*, probably from the *ehch*, *Huer*, to Hoot and Shout, whence mes our *Engliſh* Hue and Cry. But to re- rn, the *Crab*, the *Oyſter*, the *Lamprey*, the *urgeon*, come in amongſt many others of e Sea *Fiſh*, tho' the *Lamprey* and *Sturgeon* ek out the ſweet Waters. And *Note*, The *ngler* and *Fiſherman* muſt obſerve to chooſe oper Times for their purpoſe of catching *ſh*; for the violent Heat of the Day, high inds, great Rain, Snow, Hail, Thunder, ightning, Eaſtern Winds, Land-Floods, thick aters, and Leaves falling into the Water, or ch like Diſturbances, will fruſtrate their De- ns; nor is a Wet or Cold Seaſon of leſs anger to the Health of the *Angler*, who erefore at moſt Times ought to avoid lying the Ground while he *Angles*, or ſitting too uch on a Bank, to numb his Joints, and im- ir his Body by Colds, or otherwiſe.

We read that the Fiſh called *Scolopendra*, will caſt forth its Bowels to clear them of the Hook.

Of the Fiſh *Torpedo*, &c. See the Treatiſe of *Animals*, p. 7.

And now under this Head it cannot be im- oper (at leaſt to the intended Deſigu of this ook, which would omit nothing worth our mark, or fit for our Information) to ſpeak mewhat of

Whale-Fiſhing, which is a very beneficial rade, of great Advantage to this Nation, and th been continued ever ſince the happy Diſco- ry of *Greenland*, about 1580, where that Trade carried on at this day. The ordinary length this Creature is about 60 Foot, his Body und, 14 or 16 Foot thick, and his Head is e third part of him; his Mouth 14 Foot de, and the Whale-bones, or Fins, are no ner than the rough and inward part of the Mouth,

Whale Fiſhing.

The Whale.

Whale-Bone.

outh, of which he hath 500, which cloſe in
e ſhutting thereof like the Fingers of both
nds within each other; he hath a Trunk,
Breathing-hole in his Head, but hath no
eth, but a monſtrous great deformed Tongue,
ing about 8 Tun in Weight; his Brains (or
her the Oyl boiled out of his Head) is ſaid
be the *Sperma Cæti*, and there hath been made
Tun of Oyl out of one *Whale*. In the 17th
ar of Queen *Elizabeth*'s Reign, a great
ale was caſt upon the Iſle of *Thanet* in *Kent*,
Ells long, and 13 Foot broad from the Bel-
to the Back-bone, and 11 Foot between the
es; one of his Eyes being taken out of his
ad, was more than a Cart with 6 Horſes
uld draw. In King *James* the Firſt's Reign,
other *Whale* came up within 8 Miles of *Lon-*
, whoſe Body was ſeen divers times above

reddens all the Sea about it, expires. Being dead, they tow him to the Ship with two or three Shallops joined together; and then floating at the Stern of the Ship, they cut the Blubber, or Fat, from the Fleſh, in pieces three or four Foot long, which are cut ſmaller aſhoar and boiled in Coppers; which done, they take them out, and put them into Wicker-Baſkets, which are ſet in Shallops half full of Water, into which the Oyl runneth, and is thence put into Buts.

The *Pearl-Fiſhery* is a valuable Commodity, obtained in Waters in *Peru*, and thoſe Parts of *America*; there being ſeveral Divers who are able to ſtay under Water a very conſiderable Time, (ſome write above half an Hour) who after they have dived, bring up a *Fiſh* much like an *Oyſter*, which having opened, they take out the Pearl, or Pearls therein; theſe Pearls are ſuppoſed to be engendred therein, by the falling of Dew, when the *Fiſh* open their Shells to receive the Air upon the Shoar. Of their Names and Value, ſee in *Lex Mercatoria*, p. 58. See the Geographers and the Travels of thoſe that have been in thoſe Parts. See in *GEMS*, p. 27.

Of Pearl-Fiſhery.

Of *Divers* under Water. See in *p.* 353.

Pearls of all ſorts are moſt found in the *Weſt-Indies*, which are Occidental, and yet bear the Name of Oriental Pearls, which come from the *Eaſt-Indies*; and altho' they have more Luſtre, they are of a browniſh Colour, and ſomewhat inclining to the yellow, and therefore of leſs Eſtimation or Price. If Pearls yellow accidentally, they may be made fair by the means following; take two Ounces of white *Argal*, or *Tartar*, and one Ounce of *Mercury Sublimate*, alſo half an Ounce of *Alom*; put them together into a clean Pipkin,

The Iſle of *Baharem* (up
bia) belonging to *Perſia*, is
Fiſhery, there being the c
roun eſt, which are to be
vant.

The *Muſcovites* go oft
gono in *Tartary*, to fiſh fo
ther *Verbeiſt*, who publiſ
China's Voyage into the E
Anno 1682.

The Coaſt of *Manar*, j
India intra Gangem, is ren
Fiſhery, where they fiſh fo
Weeks together. *Mordeı*

At Cape *Comryn* (an e
was found a Pearl weig
tals.

At *Japan* are taken ve
incl n ng to red Colour.

Great round Pearls maj
rally the P rl is like un
one upon another. *Malv*

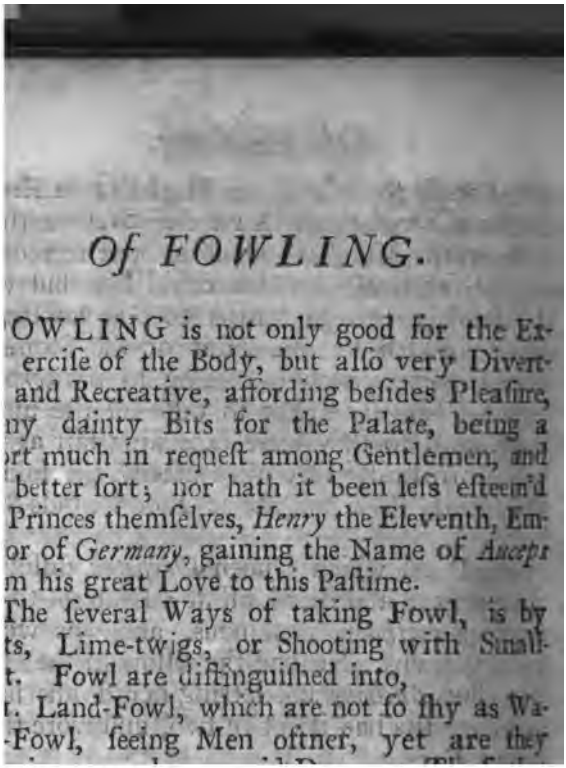
ing, *Bocado por un Roy*, (a Morſel for a King) and ſwallowed them down one after another. *Hellman* the Merchant made account to receive Money for his Pearls, but could not, but was glad within two days after to take his Pearls again, which by the Heat of the Stomach were become yellow; coming to *Antwerp*, a certain *Jew* undertook to take off the upper Scale, and ſo they were exceeding fair again, but diminiſhed; they were afterwards ſold to the Great *Turk* for above 2000 Pounds Sterling.

The Pearl which Queen *Cleopatra* diſſolved in Vinegar, and drank off at a Draught to her beloved *Anthony*, is famous, and was worth 1600 Crowns. She had the fellow in the other Ear, but *Anthony* not letting her do the ſame by that, ſhe had it cut in two, and wore them in her Ears.

He who deſires to read more at large of this Art of Angling, let him peruſe, among others, the following

AUTHORS,

J. S. Gent. his *True Art of Angling*, *Smith's Royal Fiſhing*.



Of FOWLING.

OWLING is not only good for the Exerciſe of the Body, but alſo very Divert- and Recreative, affording beſides Pleaſure, ny dainty Bits for the Palate, being a ort much in requeſt among Gentlemen, and better ſort; nor hath it been leſs eſteem'd Princes themſelves, *Henry* the Eleventh, Emor of *Germany*, gaining the Name of *Auceps* m his great Love to this Paſtime.

The ſeveral Ways of taking Fowl, is by ts, Lime-twigs, or Shooting with Small- t. Fowl are diſtinguiſhed into,

t. Land-Fowl, which are not ſo ſhy as Wa- Fowl, ſeeing Men oftner, yet are they

Wild-Goose, *Duck*, *Widgeon*, *Moor-Hen*, &c. who delight in Rivers, and large deep Waters.

To take Land-Fowl with Nets, you must first consider what Food they most delight in, for it will be proper to bait the Place, as well as to decoy them into the compass of your Net, with a Bird, or Stale of the same kind with those you lay in for. The Mashes of the Nets must be proportionable to the Fowl that it is not big enough for them to escape, nor so little that there will be difficulty in their intangling. Let the Net be about three Fathom in length, and one in depth, verged on either side with a sufficient Cord, and these Nets must be of very exact size. The best Time for this Sport is from *August* to *November*, tho' in an open Winter it may be indifferently used 'till the middle of *February*, that the Birds begin to Couple. In this Sport you must be an early Riser, and have your Nets placed before the Sun is up, and the Birds come abroad from their Night's Roosting. The most proper Places are on short Barley-Stubble, green Leys, or even Meadows that are dry, *&c.* far from Villages, or any Resort of People; for if it be uneven Ground, the Nets will not close so well, but that the Birds may flicken, or creep thro' and get away. To allure the Birds where your Nets are, you must use a Stale, as a live Lark, or other suitable Bird, which may be placed at some distance from you to a Stick, thro' which a String comes, which you may pull, to make the Bird appear as if flying about to feed; and let there be some Seeds, Corn, or Chaff scattered, to which when the Birds draw near, you need not always stay for their lighting on the Ground, but draw up smartly, and the Nets will take them in. If

Living Stales.

want living Stales, you may fl
k, *&c.* take out the Intrails, and
with Tow, and dry him in an Ov
ngs ſet in a flying Poſture, and ſo yo
furniſhed at all times. As for Impl
be uſed on this occaſion, you muſt
oad without them, *viz.* Spare-Poles,
Stakes, Pack-Thread of different ki
itting-Needle and Pin, Hatchet to ſ
ir Sticks, Mallet to drive them in,
your Stales and other Birds, with
ge at the end of it.

f your Net be for the ſmall ſort of S
ds, as *Linnets*, *Chafinch*, *Green-Bird*,
h, &c. have ſuch Birds for your St
ve been brought up to ſing in Cages
ſides of the Fall of your Nets, who
refreſhed will ſing, and draw otl

The Net which the *Italians* call *Pantierre*, being much larger, and the Clap-Net for *Sparrows*, tho' different in their Make, are yet of the ſame uſe with the former; the firſt being uſed for *Pheaſants* and larger Fowl, and the latter for *Sparrows* and ſuch ſmall Birds. Of the Clap-Net ſee hereafter.

For Water-Fowl, obſerve the Feeding-Places and Morning-Haunts of ſuch Fowl; place your Nets about two Hours before their uſual time of coming, then at about two or three Fathom beyond the Net, in a direct Line from the Stakes, faſten one end of the Cord that the upper part of the Net is extended to, or upon, whilſt the other end you hold in your Hand, being about ten or twelve Fathom long, that when the Game approaches within the compaſs of your Net, on a ſudden pull, you may eaſily caſt it over 'em. The Net muſt be flat on the Ground; and the better to prevent its being diſcerned, cover it lightly over with ſhort Graſs or Sedge, then make a Hiding-Place for your ſelf of Fern, Reeds, Flags, or ſuch as the Place affords, that the Fowl ſeeing ſuch like Things, may approach the bolder. As for your Stale, if you have any that is a tame one, or one artificially made of the kind you moſtly Net for, it is moſt proper to place it within the Verge of the Net for the better increaſe of your Sport; and this you may continue 'till the Sun is riſen about an Hour, or a little longer, but not much, for then their Feeding in thoſe Places is over 'till a little before Sun-ſet again. If your Net be very large, you cannot conveniently have a Pair of Draw-Nets, unleſs ſome Body help you, for one will be as much as you can manage, and con-

For to catch Water-Fowl with Nets.

niently throw over the Fowl; but for the aller ſort, a Pair of Draw-Nets may be pro- enough.

In Netting, for the ſmaller ſort of Water- wl, they muſt be in length proportionable the breadth of the Water you Net in, and ut two Foot and a half deep: This may be ſmaller Maſhes than the former Nets, and Packthread ſomewhat leſs, that neither the wl can get thro' the Squares, nor break its y; and Line this Net on either ſide with ſe Nets, whoſe Maſhes may be 18 Inches are, ſo that the Fowl ſtriking, and paſſing o' the firſt Net, may be intangled between h. This Net muſt be ſtaked athwart the ter, and the bottom plummed ſo that it y ſink about ſix Inches under Water, and upper part, by ſtraining, be ſlantwiſe inſt the Current (where there is any Cur-

come out, flying into the Net, which may draw up like a Purſe, and thus you take great Numbers.

The Crown-Net may be made like that for ren-footed Water-Fowl. See before in the gent, where you find Folding Day-Nets ſmall Water-Fowl. This may be placed where, as near a Barn-Door, (and then it with ſhort and light Straw) in Corn-ls, (then with the Breakings of ſhort Stub-if in Graſs-fields, then hide it with Graſs. place your ſelf ſecretly, that when the l deſcend and ſwoop, you muſt draw up a ſwift Hand. One of theſe Nets may et at a Barn-Door, where there is not 1 to play them, in the Nature of a Pitfall, ly held up by a Stick, with a String to it through a Crevis; when they are under it, the String, which pulling away the Stick ſuddenly let it fall on them. To haſten all, hang ſome Weight on the Cord that es it. The Crown-Net.

ive Nets in the form of a Scoop, or Hoop- ſuch as Anglers on Land, fiſh ſometimes al, made of fine green Thread, or a ſmall nmel-Net will do better. Then carry a y, or Lark-Hawk, on a Pole into the l, where the Larks haunt about Harveſt-, beat them up with a Dog, and obſer-where the Flock alights, creep as cloſe to as may be, then on a ſudden advance Hawk on the Pole, and as ſoon as they ive it, they will be ſo Coward, that by ing your Net over them, without their ich as ſtirring, you may take them. To dare and take Larks in the Day-time.

ds of Prey are to be taken chiefly with and Trap-Cages, of which ſort is the , which is a great deſtroyer of Fiſh-Ponds; To take Fowl with Baits and Trap-Cages.

F -Hook, and when th
Water for her Prey, ſhe
the Fiſh, if alive, or elſ
with the Hook; but if
ſhe will with her ſharp
eſcape.

To take Wild-Ducks, Buzzards, Kites, &c.

Thus *Wild-Ducks* ar
Worms, Lights, or th
zards, *Kites*, and div
Nux Vomica, diſſolved
made up into little Pell
ed up in Carrion, or ſu
take; for flying up af
and ſtupifies them ſo,
again, and may be tak
long they will recover
Grain as Birds feed o
Spirits of Wine will h
them, if you watch th
take them quickly.

As for *Linnets*, *Robi*
nales, and ſuch choi

There is another way to take Fowl by a glewy Subſtance, called *Bird-Lime.* To make which take theſe Directions. To make Bird-Lime for Land and Water-Fowl, and how to keep it from Freezing.

About *Midſummer*, or when the Sap is full, bark well grown Holly, and having ſtrip'd off a conſiderable Quantity, put it into a Kettle, and boil it in fair Water 'till the white and gray Bark part and riſe from the green; then take the green and lay it in a Heap on tiled or ſtone Floors in a moiſt place, either in a low Vault or Cellar; cover it over with Weeds and let it putrefy, which in about a Fortnight it will do, turning into a ſlimy Matter; it will be convenient in this caſe to lay a Layer of Fern between each Layer of the Bark, and when this is done beat it in a Mortar 'till nothing but ſlime remain, ſo that it may be wrought like Wax, no part of the Bark being to be diſcerned, then in a running Stream waſh it ſo well that no Mote or Huſks of any thing remain. After this, knead it into a glazed earthen Veſſel, with a Cover ſo cloſe, that the Air cannot come at it, and there it will purge and fume up its Scurf, which when it has done, in five or ſix days ſkum it off, ſtill doing ſo, 'till no more ariſe, then ſhift it into another clean Veſſel, and keep it for your uſe.

When you uſe it, put a third part of Hog's Greaſe, Gooſe-Greaſe, or any thin Greaſe into it, and ſtir it over a gentle Fire in an earthen Veſſel 'till well incorporated, then take it off, and continue ſtirring 'till it become cold.

This done, take your Rods, or what you intend to anoint with it, warm them at the Fire, and anoint them over with it twice or thrice, ſo that it may lie of an equal evenneſs, and not in Clots, often warming the Rods To anoint Rods with Bird-Lime.

ds to make it ſpread, and be the leſs per-
ved by the Fowl. In liming Straws for
all Birds you may do them the ſame way,
many together, turning and opening them
ore the Fire till they are well ſmeared. In
d frosty Weather mix it with Oyl of *Petro-*
m, or *Spike*, to prevent Freezing. To make
ıſeful in the Water, put to it when you work
with Greaſe, ſharp Vinegar about half a
ıartern to a Pound, a Spoonful or two of
'ain-Oyl, and a little *Venice* Turpentine,
d boil them gently over a Fire with con-
ual ſtirring.

To take Water-Fowl with Lime-Twigs, let
Twigs be ſtraight and long, and even, as
eled Oſiers, *&c.* light, ſlender, and pliable
play in the Wind; greater or ſmaller, ac-
rding to the Strength of the Fowl you lay

er, and if one Haunt fails move to ano-
r; but you muſt have a Dog or a Boat, or
t may loſe your intangled Game, by flut-
ng a little way off into the Water. The
Time to go to the Haunts, is an Hour
ore Day.

For Land Fowl obſerve the Haunts and To take Land Fowl with Lime Twigs.
ne as before; then in the ſame manner
ck your Lined Rods ſlanting in even rows,
that the Tops may be within a Foot and
lf of the Ground over the Haunts, one row
ard diſtant from another, then have Sticks
h Forks to ſtand pretty high, and croſs
ks over them, then Lime Strings, as you
your Twigs, placing them ſome rows
her than others waving, and faſten the
ls with a ſliding Loop, ſo that if the Fowl To get Plover.
ſs upon them, and they are ſtrained, they
y looſen and lap about them; and this way
ticularly may get you ſtore of Plover, or
r other Fowl that fly in broad Flocks,
oping cloſe by the Ground at ſome diſtance
ore they light. The ſame Strings hung on
ms over the Water will ſerve to take Wa-
Fowl. In Winter time, when no Snow lies,
Wild Geeſe and Barnacles reſort to the
en Wheat to graze; here you muſt prick
vn large Rods in the Furrows, as near the
lour of Earth, as may be, and chuſe thoſe
rrows where there is Water; you muſt be
cealed but not far off, and preſently run in
en you ſee any riſe, for then ſome are en-
gled, whoſe fluttering has ſcared the reſt;
here your Dog will be of great Uſe to run
l take them that flutter away or get into
ny Places or Waters.

And now to treat ſomewhat of *Shooting*, Of ſhooting Birds, &c.
ng the Sport that Gentlemen uſually chuſe
for

t in Vinegar over a gentle Fire, then to the
ny End of your Gun-ſtick faſten a Rag or
le Wiſp of Tow, ſtop the Touch-hole with
ſmall Pin of Wood, pour the Vinegar in
etty warm, as much as will a Quarter fill
e Barrel, then turning it up and down, ſhake
well, then lay it on a level Table, and let
lie for a Time, pour out that and put in
ſh, then churn it up and down with your
nſtick and Liniment, put in more till it
mes out clear, then tie on a dry Liniment,
at it at the Fire, and dry the Inſide of the
rrel, put the Cork then into the Bore, and
it in the Chimney Corner till it be tho-
ughly dried.

Of Setting for PARTRIDGE.

ny be near, you may be anſwered: As ſoon you have diſcovered them move off, and e a Circle round them, ſee how they lie, l prepare your Nets to cover them. But, if this means you cannot find them, a ſetting g is very proper, who will find them out the Scent. Before he be brought into the ld; he muſt be approved in obedience to ır Signs and Voice, to ſtand ſtill when he the Game, and then immediately fall on Belly, and lie as ſnug with his Noſe on the ound as poſſible. If you imagine him too off, make Signs to him to go nearer, and will crawl on his Belly, and when near ugh he will keep his Eye directly on the tridges; then is your time to be moving, l range your Circumference about the Dog l Covey to ſee whether it lies cloſe together ſcattered, then make a Sign to the Dog to ſtill, draw out your Net, and take you one l of the top Cord, whilſt another does the ne to the other, and holding it ſtretched, with it where the Dog fixes his Eye, and it fall on the Covey, then make a Noiſe ıt they may ſpring up and be entangled, otherwiſe taking to the run, they get un- r your Net and eſcape. This may be done one Perſon ſtaking down one of the Cords thin diſtance, and drawing over the other; they lie ſtragling you ought to have two ts. And thus you may take Pheaſants, ails, or Moor Pouts.

And this may ſuffice for ſetting of Partridge: ıt under this Head it will not be amiſs to at of another ſort of way for taking Fowls at fly in the Air, and that is by the Hawk; hich Art is termed,

of *Muſcovy*, witneſſeth. It was inven
firſt practiſed by *Frederick Barbaroſa*, v
beſieged *Rome*. Yet, by *Jul. Firmicus*,
cap. 8. it appears to be known 1200
ago. By the *Canon Law*, Hawking w
hibited Clergy-men, as afterwards H
by reaſon the Military Inſtruments, wh
Beaſts were ſlain, agree not with S
Warfare (as ſome give the Reaſon)
Mahomet, Son to *Amurath*, when he ma
in *Caramania*, turned 700 of his Fathe
coners out of their Service, and ca
many Huntſmen to take up Arms and
his Camp. Yet are Hawking and H
Recreations very commendable and b
a Gentleman.

The Uſe of this Sport is to catch tho
which fly high in the Air, and are no
caught; for which your Hawk, when
and unhooded in purſuit of Game, ou
ways to have ſome convenient time o
from the Fiſt, to ſoare; for unleſs the
attain a Heighth above the Bird, ſhe

Prey. And when the Dogs have ſtarted the Game, the Hawk will be ſometimes courſed a good way, which requires the beſt Horſes ſpeed to follow; and the Lure muſt be uſed to draw them down to the Fiſt. The Terms of Falconry are much to be regarded as,

A Hawk is ſaid to *bate* when ſhe ſtriveth to fly from the Fiſt.

She is ſaid to *rebate*, when, by the Motion of the Bearer's Hand, ſhe recovereth the Fiſt.

It muſt be ſaid *feed your Hawk*, not give her Meat. And after ſhe hath fed,

A Hawk is ſaid, *ſhe ſmiteth* or *ſweepeth her Beak*, and not wipeth her Beak or Bill.

By the *Beak of an Hawk* is underſtood the upper Part which is nooked.

The neather Part of the Beak is called *the Hawk's Clap.*

The Holes in the Hawk's Beak are called *her Nares.*

The Yellow, between the Beak and the Eyes, is called *The Sere.*

Hawks of long, ſmall, black Feathers like Hairs about the Sere, are properly called *Crinites.*

It is ſaid your Hawk *jouketh*, and not ſleepeth.

Alſo your Hawk *pruneth*, and not picketh her ſelf. Yet your Hawk cannot be ſaid properly to *Prune her ſelf*; but when ſhe beginneth at her Legs, and fetcheth moiſture at her Tail, wherewith ſhe *embalmeth her Feet*, and ſtriketh the Feathers of her Wings through her Beak.

Her fetching of the Oyl is called *The Note.*

The Hawk is ſaid to *rouſe*, and not ſhake her ſelf.

Sometime your *Hawk countenances*, when
picketh her ſelf. Then ſhall you not ſay
pruneth her ſelf, but that *ſhe reformeth her*
thers.

Your *Hawk collieth*, and not breaketh.

Your *Hawk ſtraineth*, not clitcheth or ſnatch-
.

She *mantleth* and not ſtretcheth when ſhe ex-
deth one of her Wings along after her Leg,
d ſo the other. After ſhe hath thus mantled
ſelf, ſhe croſſeth her Wings together over
Back; of which Action it is ſaid, *She mar-*
her Wings.

It is ſaid, Your *Hawk muteſheth* or *muteth*,
d not ſkliſeth.

It is ſaid, *Caſt your Hawk to the Pearch*, and
ſet your Hawk upon the Pearch.

It is ſaid, *She is a fair long (ſhort) thick*

Note, So long as you find any thing in her Bowels, it is dangerous to feed your Hawk.

There are ſeveral ſorts of Hawks, and other Birds of Prey, as the Gos-Hawk, the Falcon, the Ger-Falcon, and all other long winged Hawks; as alſo Spar-Hawks, Marlions, Hobbeys, *&c.* for which ſee thoſe Writers who have treated of theſe and all other kind of Fowls, Birds and Beaſts at large. And,

Of *Falconry*, have wrote Emperors as well as others; for *Frederick* II. Emperor of *Germany*, wrote two Books thereof, which *Joachim Camerarius* (having by him the firſt Copy in Manuſcript) publiſhed together with a Treatiſe of *Albertus Magnus*, of the Nature of Hawks, and Printed it at *Norimberg*. *Budæus* hath alſo wrote a large Diſcourſe of Hunting and Hawking, Part whereof is annexed to the latter End of *Henry Eſtiennes's French* and *Latin Dictionary*. In *Engliſh*, Mr. *Blundeville* and others have written thereof. See alſo *Latham's Falconry*, and

Beſides theſe already named, ſee alſo ſome other Treatiſes of *Fowling* written by the following

AUTHORS.

Willoughby's *Art of Fowling*. *Experienced Fowler*. *School of Recreation*. Opian's *Hunting*.

Of INVENTIONS

ILLAGE or Agriculture was in
by *Ceres*, a Woman; whence C
ed, The Goddeſs of Corn.
The chief Authors of New Diſcove
tomy, are *Fabricius ab aqua pendente*,
ed the *Valva* of the Veins; as the *V*
Entrance of the great Gut Colon, wa
by *Bobinus*. The Milky Veins of t
tery, by *Aſellius*. The Receptacle
yle, by *Pequet*. The *Ductus Virſun*
George Virſung of *Padua*. The Lymp
ſels, by Dr. *Joliffe*, *Bartholin* and
beck. The internal *Ductus Saliva*
Maxillary Glandule, by Dr. *Wharto*
Gliſſon. The Glandules under the T

hese Bridges were arched over like a Bow, he Town of *Stratford* was called *Bow*.

The Cuſtom of adorning Spouts and Cyſterns with Lyons Heads, is of *Egyptian* Genealogy; for becauſe the Sun being in *Leo* (a Sign in the *Zodiack*) the Flood of *Nilus* was at the full, and Water became conveyed into every part, they made the Spouts of their Aquaducts thro' the Head of a Lyon, which hath ſince been practicable in *England* and elſewhere.

Other Inventions in Architecture, ſee the Treatiſe of *ARCHITECTURE*.

Arithmetick was either invented or much promoted by *Pythagoras*, by *Euclid*, (not the *Euclid* that was Contemporary to *Plato*, and hearer of *Socrates*; but the famed Mathematician of that Name) who was after *Ariſtotle*.

Neper invented the Logarithms, by the help whereof are performed all the Operations of Arithmetick by Addition and Subſtraction. He invented likewiſe an eaſie, certain and compendious Way of accounting by Sticks, called *Rabdology*; as alſo Computation by *Neper's* Bones.

The *Ptolemaick*, *Copernican Syſtems*, &c. See in *ASTRONOMY*.

Globes and Spheres were invented by *Archimedes*; and Mathematical Inſtruments, by *Hipparchus*. Some Hiſtorians write, that *Johannes de Sacra Boſco* was the Inventor of the Sphere.

Aſtronomy and Aſtrology were invented by King *Atlas*, a King of *Mauritania*, ſaid to ſupport Heaven on his Shoulders.

Divination, by flying of Birds called *Auſpicium*, was the Invention of *Belochus Priſc.* King of *Chaldea*. See in *MAGICK*, p. 328.

Of Inventions.

St. *Pauls*, in *London*, firſt Built. St. *Peters* *ſtminſter* firſt Founded. *Oxford* Univerſity t Founded. *England*, firſt divided into res. Original of the Common Law. Firſt bleman in *England* Beheaded. *Weſtminſter* ll firſt Built. Firſt Parliament of Nobility, rgy and Commons. Three Lyons for Arms *England* firſt uſed. Firſt *Lord-Mayor*. *Lon-* *-Bridge* firſt Built of Stone. Barons firſt led by Writ. Firſt Rot or Murrain in *Eng-* *d*. Firſt Halfpence and Farthings made. rn firſt ſold by Weight. Firſt Alderman. ler of the Garter firſt inſtituted. Women t wore high Heads, and rode Sideways on rſeback. Firſt Cuſtom paid to the King. ſt Yeomen of the Guard. Firſt Sweating kneſs in *England*. Pox firſt known. Gen- nen Penſioners firſt appointed. St. *Paul's*

in a Mortar, on which he had placed a Stone, and having occaſion to light a Candle, in ſtriking Fire a Spark thereof fell into the Mortar, and fired off the Compoſition.

The firſt that uſed that deadly Engine the Gun, were the *Venetians* againſt the Inhabitants of *Geneva*.

Mr. *Robert Boyle* contrived the Experiment concerning the different Parts and Redintegration of Salt-peter. See towards the End of this Treatiſe.

Money was invented and firſt coyned at *Rome*, by *Servius Tullius*.

Janus firſt invented the Braſs Money, called *Æs*.

Peter Pence was firſt inſtituted by *Offa*, King of the *Mercians*; or as others by *Ina*, King of the *Weſt-Saxons*. See *COYNS* and *MEDALS*.

Dying in Purple, was found out at *Tyre*, by the Accident of a Dog ſeizing the Fiſh, called *Conchylis* or *Purpura*; which ſtained the Dogs Mouth of that Colour.

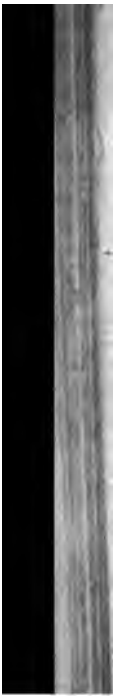
Gnomens of Dyals were firſt invented by *Anaximander* the Philoſopher.

Torricellius found out the Barometer, whereby we weigh the Air it ſelf.

The famous Pneumatick Engine or Air Pump, was invented by the honourable *Robert Boyle*. He giveth a full Account of it in his Diſcourſe of *Phyſico-Mechanical Experiments*; by the Help whereof he proves the Elaſtick Power and Spring of the Air, and ſeveral other wonderful Phænomena's relating to the Nature, Spring, Expanſion, Preſſure, Weight of the Air, *&c.*

Earthen Veſſels were firſt invented by *Coreobus*.

About



according to the Opi
Authors.

Robert Brocke, one o
Hen. VIII. firſt invente
Pipes of Lead for Conv
Ground, without uſin
bert Cooper, Goldſmit
made the Inſtruments,
in Practice.

The bringing the *N*
don, was the Invention
of *London*, in the time
CHRONOLOGY, *p.*

Sir *Robert Gorden* i
vented the Water Pu
twice as much Water
wrought with half the
half the Time. Coſts
takes up but half the R
performed at *Deptford*,
the Lord *Dartmouth* a

Tilting and Tournaments were invented by *Manuel Comnenus*, Emperour of *Conſtantinople*, as ſaith *Nicetas*, who wrote about *Anno* 1214.

Coaches were invented in *Hungary*, and there called *Cotzki*. Some ſay they were invented by *Erichthonius*, who had Feet very deformed.

Sailing-Coaches were invented by *Simon Stevinius*, and are us'd in *China* and plain Countries; and they will run 14 Leagues in leſs than two Hours. See in *MATHEMATICAL MAGICK*, p. 349. and *GEOMETRY*, p. 157.

The Inventor of Water-Mills is not known; therefore *Polydor Virgil*, in his Book *De Invent. Rerum*, L. 3. refers them amongſt other fatherleſs Inventions. *Pliny*, in his *Nat. Hiſt.* L. 18. c. 10. mentions them as commonly uſed in his time. But others affirm *Beliſarius*, in the Reign of *Juſtinian*, did firſt invent them; whence *Pancirollus* concludes, that it is likely their Uſe was for ſome ſpace intermitted: And being afterwards renewed again, they were then thought to be firſt diſcovered.

Mathematical Inſtruments were invented by *Hipparchus*.

Clocks, Watches and Chariots are ſaid to be invented by the *Flemmings*.

The Inſtrument of Perpetual Motion was the Invention of *Cornelius Van Drebble*, a *German*.

Weights and Meaſures were firſt found out by *Phidon* an *Argive*, A. M. 3146.

A Man's Viſage repreſented in Plaiſter or Alabaſter was the Invention of *Liſiſtratus*; who took the Shape off the Face in a Mould of Clay or the like, and then caſt the Protraicture or Image in Wax. He was of *Sicyone*.

The

Of Inventions.

The Maze or Labyrinth in *Crete*, was in-
ted by *Dædalus*, whence all profound In-
tions were called *Dædales*; and the *Latins*
named the Earth *Dædale*. See Artificial
reties in *GEOMETRY*.

Figured or Pictured Veſſels were invented
Diburades a Potter of *Corinth*.

The Iron Saw was invented by *Talus*, ſeeing
Jaws of a Serpent.

The Axe, the Plummet, the Augur, Glue,
ment, and moving Statues, were firſt made
d invented by *Dædalus* above.

Letters were invented by *Abraham*. *Teſte*
lo.

Three of the *Greek* Letters were invented
Claudius Cæſar.

Pſamneticus's Invention to find the firſt Lan-
age of the World. See *GRAMMAR* and

Brachygraphy or Short-hand Writing, is ſaid to be invented by *Mæcenas*.

PRINTING, according to *Polydore Virgil*, was firſt invented by *John Guttemburg*, practiſed at *Harlem*, and perfected at *Mentz* in *Germany*, and is ſaid to be proved firſt by one *John Fauſt* or *Fuſt*, who Printed *Tullii's Officiis* being the firſt Book was ever Printed; wherefore ſome attribute the Invention to *Fuſt*, and ſome to *Lawrence*, the Burgher of *Harlem*. It was firſt brought into *England*, and uſed here by *William Caxton*. See *Hen.* VI. in our *Chronology* of *England*. The *Chineſe* are ſaid to have this Art before the *Europeans*.

Points for Reading, were invented long before Printing by *Thraſimachus*, Scholar to *Iſocrates*.

The ſetting Seals to Bonds and Writings was firſt uſed in *England* after the *Norman* Conqueſt. Before that time there were only Witneſſes to Deeds.

Georgius Leontinus was the firſt that durſt undertake to diſcourſe in a Publick Aſſembly on any Subject ſhould be offered to him. Sir *Thomas Moor*, being at *Bruges* in *Flanders*, found a Theſis ſet up by a Man, That he would Anſwer any Queſtion could be propounded to him in any Art whatſoever. Wherefore Sir *Thomas* ordered this to be put up for him, *Ubi Averia capta in Withernamio ſunt irreplegibilia.* The Man not underſtanding the Terms of our Common Law, could not Anſwer it.

Many Inſtitutions and Ordinations in Law. See at the End of the Treatiſe of *Law*.

Raymund Lully hath invented a prodigious Art, to enable any one to diſcourſe *Extempore* on any thing whatever.

The Art of Memory was firſt invented by *Simonides Melito*; and after taught by *Seneca*, who

) could repeat 2000 Names or Words any
y upon twice hearing of them.
Magick was invented by *Athrax*.
Flavius Goia of *Memphis* or *Amalphis*, in tha
ıgdom of *Naples*, is thought to be the Inven-
of the Mariner's Compaſs of 8 Winds; about
) Years ſince. The Remainder of the 24 are
l to be perfected by the People of *Antwerp*.
Metals were firſt found out by *Cadmus*.
The firſt finding out of Metals is thought
be owing to the Conflagration of Woods.
Ariſtotle tells of Shephards in *Spain*, who
ing a Wood on Fire, found Molten Silver
down in the ſame Place.
ron was invented, and the Means of Work-
it, by *Tubal-cain*, mention'd in Scripture.
hereafter.

The Harp is ſaid to be invented by *Mercury.*

Guido Aretine, *Anno* 1028. invented the Six Syllables uſed in Vocal Muſick, *Ut*, *Re*, *Mi*, *Fa*, *Sol*, *La*.

The Firſt Ring of Bells in *England*. See in ARITHMETICK, p. 145.

Ships with Decks, and alſo Galleys, were an Invention of the *Egyptians*.

Open Veſſels were invented by the *Phœnicians*.

Large Ships were the Invention of the *Cyprians*.

Skifts or Cock-Boats were invented by the *Illyrians*.

Brigantines were invented by the *Rhodians*.

Frigots were invented by the *Cyrenians*.

Ferry-Boats were invented by the *Salamynians*.

The Oar was invented by the *Bœotians*.

Grapling-Hooks were invented by *Anacharſis*; who alſo found out the Anchor and the Potter's Wheel.

Fireſhips were invented in the Reign of Queen *Elizabeth*; when ſome of the Queen's Commanders filled ſome old Veſſels with a great deal of Pitch, Tar, and other combuſtible Matter, and ſet them under full Sail to run (on Fire) among the *Spaniſh* Ships (called the invincible *Armada*) then lying at Anchor ready to invade *England*, by which means they were diſordered, burnt, *&c.* and that Fleet forced to return without doing any thing.

The Rudder or Helm was the Invention of *Typhis*; who, obſerving a Kite in flying, ſteered her ſelf by her Tail, invented that by Art, which he had diſcerned to be in Nature.

The Mariner's Compaſs. See the Page before.

Maſts

Of Inventions.

Masts and Sails were the Invention of De-
us and *Icarus*.

The Tyrians *first the Art did find,*
To make Ships travel with the Wind.

Marriage was first invented by *Cecrops*, first
ng of *Athens*; who also found out Images
l built Altars, *A. M.* 2394. He built *Athens*;
some say, *Theseus* was the Founder of
t City.

Polygamy was invented by *Lamech*.

About the 8th of Queen *Elizabeth*, *Spanish*
edles were first taught in *England* by *Elias*
nose a *German*.

Cloath-making was first invented by the
mmings.

Bowling and Baking of Sugar was first

About the 14th of *Hen.* VIII. Turkeys were brought into *England*: Alſo planting of Hops brought from *Artois*, &c.

Making of Honey was invented by *Meliſſa* a Woman. See Explanation of ſome Poetical Fictions in *Poetry*.

Oyl and Rennet to make Cheeſe were invented or found out by *Ariſteus*. See *pag.* 507. in *IGNORANCE* of the *ANCIENTS*.

Mrs. *Dinghen van den Plaſſe*, born at *Teenen* in *Flanders*, Daughter to a worſhipful Knight of that Province, came with her Huſband to *London*, and profeſs'd her ſelf a Starcher; *Anno* 1564. being the firſt openly taught Starching in *England*. Her Price was four or five Pounds to teach how to Starch, and twenty Pound to teach how to Seeth Starch; and the *Engliſh* Gentry made great Uſe of her.

In the 4th of Queen *Elizabeth*, *John Roſe*, dwelling in *Bridewel*, invented an Inſtrument with Wyer-Strings, called the *Bandora*; and left a Son who excelled himſelf therein.

In 1564. *William Rider*, Apprentice of Mr. *Thomas Burdet*, againſt St. *Magnus*-Church at the *Bridge-Foot*, *London*, chancing to ſee a Pair of Knit Stockings, in the Lodging of an *Italian* Merchant that came from *Mantua*, borrowed thoſe Stockings, and cauſed others to be made by them; and theſe were the firſt Worſted Stockings made in *England*. Within few Years after, the making of *Jerſey* and Woollen Stockings began to wax common.

In 1599. *William Lee*, Maſter of Arts of St. *John's*-College, *Cambridge*, firſt deviſed the Art of Weaving Silk Stockings, and perfected the Art of Knitting.

Mr. *John Tyce*, dwelling near *Shoreditch*-Church, the firſt *Engliſhman* that deviſed and

About the beginnin
Hen. VIII. began the
in *England*, by *Spania*
In the 5th of Quee
thews, at *Fleet-bridge*
againſt all Strangers
land; and was himſel
attained the Perfectio
and Knive Hafts.

About the ſame ti
to make all ſorts of P
gers had ſold here t
Year.

Maſks, Buſks, Fa
viſed and uſed in *It*
it went to *France*, a
the time of the Maſſ

Queen *Elizabeth*,
mation, repreſſed
Chains, and Cloaks
their Heels, and limi

METRY. The firſt Makers of Glaſs were the *Sidonians*; and it was brought into *England*, *Anno* 662. by *Benault* a Foreign Biſhop. Glaſs Windows, *&c.* ſee in *OPTICKS.*

The Telleſcope was invented by *James Metius* of *Amſterdam*; tho' oft aſcribed to *Galilee*, who only improved it.

Pictures in Glaſs, and laying Colours in Oyl were invented by the *Flemmings*. Others write, *John van Eyck* was the firſt Inventor of Painting in Oyl.

Hour-Glaſſes were invented by the *Sicilians*, who alſo firſt made Paſtoral Eclogues.

Phyſick was invented by *Chyron*; ſome ſay by a fam'd Phyſician in *Egypt*, named *Hermes Triſmegiſtus*: Others attribute it to *Æſculapius*. See *PHYSICK* and *ANIMALS*.

Mithridate was invented by *Mithridatus*, King of *Pontus*, who had ſo fortify'd his Body therewith, that upon his Son's Rebellion, when he attempted to Poyſon himſelf, he could not do it.

Allum. See in the Explanation of Medicinal Drugs, in *PHYSICK*.

Tragedy was invented by *Arion*, an eminent Poet and Muſician.

Comedy was firſt writ and invented by *Aſtronicus*, A. U. C. 400.

Verſe is ſaid to be invented by King *Bardus* in the time of *Abraham*.

The *Aſclepiad* Verſe was invented by *Aſclepiades* the Rhetorician.

The *Sapphick* Verſe was invented by *Sappho*, an Heroick Woman, eſteemed a Tenth Muſe; but whether the ſame *Sappho*, which taught Birds to pronounce *Sappho* as immortal, I know not.

The Battle-Axe was
one of the *Amazon* Q
The firſt caſt Pieces c
made in *England* wer
Suſſex by *Ralph Hage*
Queen *Elizabeth* w
Gunpowder to be mad
fore was had from Fo
Rates. See in this Tr
Scaling-Ladders we
a Noble *Grecian*, at t
The *Prætorian* Gu
Auguſtus.

Cuſtom of having Flags over our Sepulchers. *Vide* Margin, *p.*391. in *Heraldry*.

The Sword is ſuppo
ancient *Saxons*, who
Scythe (or a *Turk*'s Sc
took for their Pattern
Saiſen; a Sword, *Se*
Hand *Seaxes*: And
Weapon, they are th
of *Saiſons* or *Saxons*.
It is not without

Pteropherus, a Region of *Scythia*, who wore em in memorial of their *Changus Cham* Emperor, who had been once preſerved and ſaved by means of an Owl, whoſe Feathers they afterwards wore.

In *Hungary*, the greateſt Aſperſion is the Name of a Coward, which cannot be wiped off without killing a *Turk*, after which they are priviledged to wear a Feather.

The Cuſtom of wearing Rings on the Fingers is of great Antiquity, and were uſed as Tokens of Remembrance. *Plutarch* writes that *Cæſar* uſed to weep at the ſight of *Pompey*'s Ring, which he wore after *Pompey* was ſlain; and *Pliny* ſaith, that *Jupiter*, to keep in Memory the Puniſhment of *Prometheus*, for that he deceived the Goddeſs of the Element of Fire, and did bring it to Man's uſe, made a Ring with a Stone therein, and wore it.

Margaritone, the famous Painter, was the firſt that deviſed and invented laying Gold or Gilding upon *Bole Armoniack* to be burniſhed, and the Glue for Picture Tables, which never will decay.

Thales the Philoſopher and Aſtronomer, firſt found out the Eclipſes and Declenſions of the Sun, firſt obſerved the *Solſtices* and *Equinoxes*, and firſt divided the Year into 365 Days. See more in the Tract of famous Philoſophers in our Treatiſe of *PHILOSOPHY*. See alſo *ASTRONOMY*.

Eclipſes firſt found out, and the Year firſt divided into 365 Days.

Hawking was invented and firſt practiſed by *Frederick Barbaroſa*, when he beſieged *Rome*.

Hawking. See Falconry in the Treatiſe of *Fowling*.

Pelagius, Pope, or Biſhop of *Rome*, about 555 Years after Chriſt, was the firſt that made a Law to Puniſh for Religion, and Burning for Hereſy was firſt put in Practice in *England*

Treatise of RELIGI
p. 326. *Fanaticks*, whe
St. *Swibert* was the
lemnly Canonized.

Uriah the Prieſt, a
Jeberechiah, are thoug
thers at the Circumci
baz, Iſa. 8. 2. and fr
having God-fathers i
have taken its Origi
Lib. 1. Cap. 16. An
of Children be as A
Faith, yet was it quit
the *Danes* came in,
946. compelled the D

Singing of Pſalms
Church, *Anno Dom.*
vice was firſt ſaid in
Pſalms were turned
and *Hopkins*, *Anno* (
POETRY.

Swearing by the

iſhes. Of the Faſt on *Friday*, and its great Antiquity, ſee in *Creſſy's Church Hiſtory*, p. 376. Of *Rogation* Week and *Ember* Days, ſee at the end of our Treatiſe of *ASTRONOMY*, as alſo of the Church Holy-days.

Organs were brought into the Church by *Sicilian*, *Anno* 657.

Tythes were firſt eſtabliſhed in *England*, *Anno* 786.

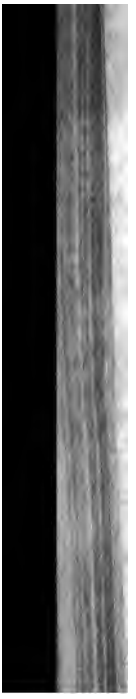
Bells firſt ordained to call People together, *Anno Chriſti* 603. Of the firſt Ring of Bells in *England*, ſee in *ARITHMETICK*, and and of Bells of a prodigious Size and Weight, ſee in Magnificent Buildings of the Ancients in *ARCHITECTURE*.

The Bible was firſt tranſlated into *Engliſh* by *William Tindal*, 21 *Henry* VIII. and then printed; and was new tranſlated, *Anno* 1611. It had been anciently tranſlated into the *Saxon* Tongue, about *Anno* 940.

The Bible was firſt divided into Chapters, *Anno* 1252.

Standing up at the Creed is a Cuſtom of *Poliſh* Extraction, the People of that Country uſing to draw out their Swords when their Goſpel was reading, to ſignify they were ready to defend the ſame againſt all; and we uſe it, to expreſs how prepared we are to Believe it, and how Reſolute we are to Maintain it.

Firſt Fruits are the Profits of every Spiritual Living for one Year, and were anciently gathered throughout all *Chriſtendom*, and given to the Pope; but Firſt Fruits and Tenths of all Spiritual Dignities and Promotions, which were firſt given to the King of *England*, was unto King *Henry* VIII. *Anno* 1535. And the calling the King of *England* Supream Head of



Clergy of the [illegible]
Secundum uſum Sarum,
Biſhop of *Salisbury*, [illegible]
queror, who deviſed
uſed in his Church, a
uſed in other Church
common Saying.

The Regiſtring of
and Burials, began fir
it was ordained by C
General, that they ſh
Churches, and in ever

The Burying of t
within the Walls of C
Reign of *Cuthred* (ſc
Cuthbert) King of t
whoſe Time the Dead
the Fields, but Dr.
Anno 1650. thought
Place for Burial.

Of *Inventions* loſt
wrote a Book, *De An*

Epſom Waters were found out about 1618. by one *Henry Wicker*, who in a dry Summer, when the Cattle were in great want of Water, diſcovered ſome Water ſtanding in the Footing-hole of ſome Beaſt, which he at firſt ſuſpected to be their Urin, but obſerving the clearneſs thereof, he with his Staff digged a ſquare Hole about it, and ſo departed. Returning next day, he found a moſt clear Water ſpringing up in the Hole; but the Cattle tho' very Thirſty would not drink thereof, it having a Mineral Taſte, which is cauſed by running thro' ſome Veins of Alom. And theſe Waters have now got a great Reputation in the Cure of many Diſeaſes. Of other Medicinal Waters in this Kingdom, ſee in the Treatiſe of *ELEMENTS*, Vol. 1. p. 123.

Country Wakes, whence their Original. See *Vol.* 1. p. 336. Several other Inventions and Diſcoveries may be ſeen in the ſeveral Treatiſes of this Book.

Of IGNORANCE in the ANCIENTS.

THE Treatiſe of *Inventions*, as alſo of *Egyptian Hieroglyphicks*, and others, give us ſufficient cauſe to admire the Knowledge and great Judgment in many of the Ancients that were ſo deeply learned in Natures School and Humane Science, which alſo the *Hieroglyphicks* uſed by the Ancient *Germans* and *Saxons* well evidence; yet that our Anceſtors and others were not all ſo bleſſed with Learning, but

See Hiſtory.

Pole are not Frozen up, as hath been believed formerly. See *Geo. Best*, his Sea-Chronicle, and *Maxon*.

Yet did the Cosmographers make its Circuit 1136 French Miles.

g Pope *Zachary*, *Vir* (u rtunate in a Time of Ignorance) *Heylin*, p. 280.

Pope *Clement* VI. el Prince of the Fortunat Men thought he had bee *tain*, and our Ambassad with all speed from t of it. That there wer norant in *Geography* when *Ephorus* writes tl in *Spain*; *Stephen* the was a City of *Galilea* the *Dacians* and *Cimbri* that the *Riphean* Moun also that Amber distil the Commodities of *Eu* PHY.) *Strabo*, that *now*, rises not far fr And the People of Ol more than Seven Clin

to riſe in vaſt Marſhes near *Montes Lunæ*, not far from the Cape of *Good Hope*.

Ariſtotle himſelf was Ignorant of the Flux and Reflux of the *Euripus*, for which reaſon he (as is ſaid) drowned himſelf therein. See Water in the Treatiſe of *ELEMENTS*.

Strabo affirms our Anceſtors, the *Britains*, were ſo ſimple, that though they abounded in Milk, they had not the Artifice of Cheeſe. And the making Drink of Barley was a thing formerly unknown to any Nation of *Europe*, the *Britains* only excepted, to whom this Art is (and not improbably) conjectured to have been brought by the *Phœnicians* from *Egypt*. See *Britt. Speculum*. 42.

The Ancients thought the Torrid or Burning Zone was uninhabitable.

The Ancients were ſo Ignorant in the cauſes of an Eclipſe, that they attributed it to the Power of Witchcraft, and at ſuch times feared the Extinction of the Stars. *Archelaus*, King of *Macedon*, cauſed once his Palace Gates to be ſhut up, and his Son's Hair to be cut off (a Ceremony uſed at Solemn Mournings) becauſe there happened an Eclipſe. Some Nations uſed at ſuch time to ſtrike againſt Braſs Inſtruments, *&c.* and make great Clamours and Noiſes, thereby to eaſe the Moon, and free her from thoſe Labours ſhe was ſuppoſed to lie under by means of Inchantments, Sorceries, *&c.*

King *Alfred* ſaid when he came firſt to his Kingdom, he knew not one Prieſt on the South-ſide *Humber* underſtood his Service in *Latin*, or could tranſlate an Epiſtle into *Engliſh*.

A *French* Biſhop being to take his Oath to the Archbiſhop of *Canterbury*, finding the word *Metropoliticæ*, not able to pronounce it, ſaid, *Soit pour dict*, Let it be as ſpoken.

Du

among himself deceived
loſſos for *Muletos*, makin
worſe.

In the Time of King
the Motto of the Marti
was, *Sum Talboti, pro*
the beſt *Latin* that his C
the Age could afford hir
Vurgas, a *Spaniard*,
great Stateſman in *Fla*
Lovain Petitioning him
vileges, he gave this fe
mus voſtros Privilegios.
boni nihil faxerunt cont
patibulari. The Terms
being as harſh as the
ſome polite Orators,
hanged indeed, than t
tin.

See the Kalendar V
dies Menſis, &c. in
lucky and unlucky.

" Horſes; the Receiver of the Letter, with " ſome Labour, came at laſt to the under- " ſtanding of it all except *Equip*, whereof in " no ſort could he conceive the meaning: In " the end he conſulted about it with divers " Gentlemen in the Country thereabouts, but " none could reſolve him. It was among " them remember'd that we uſed in our Lan- " guage the word Quipping, and the word " Whipping; the firſt not proper for Horſes, " but ſometimes uſed to Men, the latter not " fit for Gentlemens Horſes, but for Carters " Jades. In fine, none of them all being able " to find in all the *Engliſh* they had, what " *Equip* might mean, a Meſſenger was ſent on " Purpoſe to the Court at *London* to learn the " meaning thereof of the Writer of the Let- " ter. Thus far *Verſtegan*.

The Tenth Age was ſo dull, that Pope *Silveſter* paſſed for a Magician, becauſe he underſtood Geometry. *Vide*, *Baron*. And upon *Turrianus*'s ſending little Artificial armed Men to move before the Emperor *Charles* V. of which ſee in *GEOMETRY*, p. 159. the Prior of St. *Jerom* being unſkilled in the Mathematicks, ſuppoſed it to be by Witchcraft.

We read the Inhabitants of the *Baleares* (Iſlands in the Mediterranean) being ſo greatly ſtocked with Coneys, that they undermined Houſes, and threw down Walls, *&c.* The Inhabitants armed themſelves and fought with them; but that not prevailing, they ſent to the *Romans* for Aid, who taught them the Uſe of Ferrets.

Dr. *Fuller*, and others, make mention of the Simplicity of the Primitive *Britiſh* Buildings; For, ſaith he, we find that *Hoel Dah*, King of *Wales*, *Anno Dom.* 940. made himſelf a Palace

of

than the Enemy intend
Fire-works into his Fle
ſought to quench the F
ing on Salt-water; but i
the Saylors of that Tim
the Nature of Sea-wat
See in the Treatiſe of *E*.

Falconry was wholly
cients. See in the Tre
p. 482.

The old *Britains* (n
were anciently no bett
Skins of Beaſts, many
but the Sea-Coaſts, or
learned to wear the ſan
Gauls; the moſt ren
Gaunacum, (whence ou
was a thick Covering
having a Nap on both
by the *Gauls*, and bett
was only to keep out th

Of ERRORS
Among the
PEOPLE.

THAT the World is but One, is a common received Notion, and ſeemingly grounded on Scripture, as well as *Ariſtotle*'s Authority, who ſets down two chief Arguments for it, *viz.* That the World is but One.

1. That ſince every heavy Body doth naturally tend downwards, and every light Body, as Flame, Smoak, *&c.* upwards, what a hudling and confuſion (ſaith he) muſt there be if there were two Places for Gravity and two Places for Lightneſs; for it is probable that the Earth of another World would fall down to this Center, and ſo mutually the Air and the Fire here aſcend to thoſe Regions in the other, which muſt needs much derogate from the Providence of Nature, and cauſe great Diſorder in his Works. But to this is anſwer'd, That if any Perſon will conſider the Nature of Gravity, he will plainly ſee no Ground to fear ſuch Confuſion. For Heavineſs is nothing elſe but ſuch a Quality as cauſes a Propenſion in its Subject, to tend downwards towards *its own* Center; ſo that for ſome of the Earth of another World to come hither, could not be ſaid to be a Fall, but an Aſcenſion, ſince it moved from its own Place, and this were impoſſible becauſe againſt Nature. 2. *Ariſtotle*'s Second Argument is from his Maſter, *Plato*, *viz.* That there is but one World, becauſe there is but one firſt Mover, God. In Anſwer whereto

It was noted of Ælius Hadrianus *for an Error in his Mind, that he ſhould deſire to Comprehend all Things.*

ereto we deny the Conſequence,
rality of Worlds doth not take av
ity of the firſt Mover; for, as the S
l Form, ſo the Efficient Cauſe hath
pearing Multiplicity from its pa
tter. But ſome again will ſay, 1
ls us but of One. 2. St. *John* ſpea
d's Works, ſaid, He made the Wo
Singular Number, which is alſo th
nt of *Aquinas*. 3. The Opinion
orlds than One has been accounted
y, witneſs *Virgilius*'s Excommunicati
uinas ſays, if there is more than On
ſt either be of the ſame, or differe
e, and ſince one probably would h
re Perfection than another, it muſ
ſame Nature, which would argue
vidence; if of different kind, then
m could not be called the World

manifeſtly proved to be true. To the fourth, the Term *World* may be taken in a double Senſe, generally for the whole Univerſe, particularly for an inferior World, conſiſting of Elements. So that in one Senſe there may be but One, but in the proper Senſe, if every Star and Planet were a World, that Multiplicity is comprehenſive in the word Univerſe, and all thoſe great Globes, like the Parts of our known World, come under the Denomination of a World; and 'tis plain, ſuch Plurality doth not contradict Scripture or Reaſon, as he may find who will take the Trouble to peruſe that Book, Intituled, *The Diſcovery of a New World in the Moon.* The Error about the Aſtronomical Syſtems of the World. See *ASTRONOMY*, p. 252, 253.

Humanum eſt Errare. The Prophets have erred a little through Human Frailty. *Moſes* failed in telling the People he would not only bring them out of the Land of *Egypt*, but carry them into the Land of *Canaan*; which latter he did not. *Jonas* in foretelling the Deſtruction of *Nineveh* within forty Days; *Elijah* in many Things to come in the Days of *Ahab*, which yet were not fulfilled 'till after his Death; *Iſaiah* in the Death of *Hezekiah* the next day, when his Life was prolonged fifteen Years after; *Matthew* failed when he wrote that Chriſt was not dead, 'till the Launce had pierced his Side.

God doth not always diſpoſe the Succeſs of Mens Actions according to their Intentions, but according to his own ſecret and juſt Judgments. So the Children of *Iſrael* were twice overthrown, although God appointed them a Captain, and bad, and incouraged them to give Battle, *Judic.* Cap. 20.

Of Errors

Eccleſiaſticus, Chap. 16. ver. 15. *Note*, No
h Verſe in St. *Hierom*, and other *Latin* Bi-
s.

Alſo Chap. 8. ver. 17. much difference be-
een the *Engliſh* and *Latin* Verſe.

Again, in Chap. 32. of *Eccleſiaſticus*, *Before*
Thunder goeth the Lightning.

Likewiſe great difference between the *Eng-*
and *Latin* Verſe of *Proverbs* 18. 3. and
6.

Alſo, *The Evening and the Morning made*
firſt Day, yet the Sun was not created 'till
fourth day. See *Geneſis*, Chap. 1. See in
Treatiſe of *COLOURS* and *DYING*,
433.

Of the GARDEN *of* EDEN.

of the Deluge. Some again Place it in the Air, under the Circle of the Moon, and tell us the four Rivers fall down from thence, and running all under the Ocean, riſe up again in thoſe Places where they are now found; which Foppery I will not Honour with a Confutation, ſaith *Heylin*, in his Deſcription of *Meſopotamia*, p. 612. Some conceive the four Rivers to be *Tigris*, *Euphrates*, *Nilus*, and *Ganges*, and that Paradiſe was the whole World; but it muſt follow then that *Adam* when he was driven out of Paradiſe, was driven out of the World. See *Heylin*'s Geography, *p.* 612. *Hickeringill*, Rector of *Colcheſter*, in his Survey of the Earth, ſaith, I have been often upon the ſearch, and the Grand-Inqueſt, to find in what Place of this Earth was ſituated the Garden of *Eden*, deſcribed only in *Geneſis* the Second, with its known Boundaries and Landmarks, whence flowed four Rivers, *Piſon*, *Gihon*, *Hiddekel*, and *Euphrates*, the three firſt have run away with themſelves; *Non ſunt inventi* —— only *Euphrates* keeps its Name and Channel. No Skill in Geography, nor Aid of any Travellers, no not famous Sir *John Mandeville*, nor mad *Tom. Coriat*, ever made any more Diſcovery of the Garden of *Eden*, than of the Head of *Nile*, &c.

Of St. GEORGE *of* Cappadocia, *being the Patron Saint of* England.

This Opinion, however believed, is very ill grounded, and certainly Erroneous, for the Circumſtances of Things and Times, as well as of the Perſon related by Sir *Henry Spelman*.

Persia, that reign[illegible]
Eminent for Miracles, &
ferings are reckoned am
Writings, which conclu
Now whoever ſearches
was ſuch an Emperor
much leſs one that reigne
But this *Arian* Marty
Alexandrian See, and v
St. *Athanaſius*, Pope *Z*
for, and placed the H
tho' the Body of him h
to Aſhes Four Hundre
Miſtake hath happened
George of *Oſtia*, being
Legate to *England*, a
of *Ceoltide*; *Ceol* in
and *Tid æſtus Marinus*,
Tide flowed, which u
cia, becauſe King *Offa*
cil there, therefore m
on the Banks of *Seve*
for the Virgin deliv

Worthy, not an Eminent Soldier. Beſides, St. *George*'s Atchievements are ſaid to be in *Libya* and *Cappadocia*, and he in *Perſia*, *William* of *Malmſbury* makes the Place of his Martyrdom at *Rama*, if (ſaith he) we give Credit to Fame. Yet *William* of *Tyre* ſaith he found a reſting Place at the City of *Lydda*, and ſuch was the uncertain Account of this *George*, here in *England*, after the Time of the *Norman* Conqueſt. And *Gelaſius*, Biſhop of *Rome*, condemned the Legend of St. *George* as Heretical and Ridiculous. We cannot, with others, preſerve the Saint and condemn the Story; and if an Eminent Martyr was not known in the World Three Hundred Years after his Death, there is no Reliance on Diſcoveries, if any could be made in after Ages. 'Tis certain, ſeveral Ages have been Labouring under the Spurious Legend of the *Arian George*; and they had removed the Scene from *Alexandria*, and at laſt pitched upon *Cappadocia*, but ſtill with ſuch a Tincture of the Original, the whole Story plainly appears a Fiction: And in *England* hath been only a general Conceit about this Eaſtern Story, for it hath never been related by thoſe that gave the greateſt Credit to ſuch Things, without ſome Abatement of its Credibility, as is obſerved before by *William* of *Malmsbury*. Religion and Notion, as well as the Itch of Superſtition was ſo catching however, that the Opinion of this Saint was moſt agreeable to our Apprehenſions; and from thence it was the Deſigns and Humours of Princes run according to the Genius of the Age: From theſe Reaſons are the Apparitions of St. *George* recounted in the Wars undertaken againſt the Infidels in the Holy Land, *&c.* where he is ſaid to be ſeen to

t for them. The Devotion of *Juſtinian* red him into the Kalendar, as that of *Ro- de Oily* built a Church of St. *George* in Caſtle at *Oxford*, and King *Edward* III. r him built the Chappel of St. *George* at *dſor*, as well as founded the Order of the ter to his Honour; ſo *Lydda*, famous for Tomb of St. *George*, was raiſed to the nity of an Epiſcopal See, and the Tower *Antioch*, formerly called the Two Siſters, ned the Name of St. *George*; yet in none all theſe was he called or intitled, Saint *rge* of *Cappadocia*, by which it ſhould plain- ſeem, the Learned were not ſatisfied that *padòcia* was the Country of our St. *George*. it was no ſmall Advantage to have the tion of a Protecting Saint animate the Sol- rs in their Wars; and as ſuch thoſe of the nourable Order of St. *George* may look up-

Mr. *Thomas Salmon*'s Hiſtorical Account of St. *George*.

Of the Ten SIBYLS.

One *Petit* a Phyſician at *Paris*, has indeavoured to prove that there never was any more than One Sibyl that was a Propheteſs; that ſhe was a *Grecian*, becauſe all the Oracles aſcribed to her are in *Greek* Verſes, and that it's improbable that Women born at *Chaldea*, *Phrygia*, and *Italy*, ſhould write in *Greek*. Then he proceeds to prove that the Name of this Sibyl was *Herophile*; that ſhe was born at *Erythræa*, in the Leſſer *Aſia*, and that her diverſity of Names was occaſioned by her Travels, or by the Spirit's Tranſporting her from one Place to another; and that ſhe died at *Cuma* in *Italy*. The *Romans* had a great Veneration for theſe Oracles, and kept what they could procure of them in the Capitol, to which they had recourſe in Caſes of Difficulty. *Voſſius* ſays the ancient Books of the Sibyls at *Rome* were altogether Prophane; but that thoſe brought from *Greece* by *Craſſus*, contained ſome Prophecies that had been given by certain *Jews* for Sibylline Oracles, which is the reaſon of thoſe Prophecies of the Coming of the Meſſiah, that are found among them. See *Beroſus* among the Hiſtorians, *Vol.* 1. p. 300.

The Names of the Ten Sibyls. See *p.* 135.

The Story of Pope JOAN *confuted.*

Confutatio Fabulæ de Joanna Papiſſa cum Nihuſio. Clearer Confirmations muſt be drawn for the Hiſtory of Pope *Joan*, who ſucceeded *Leo* IV. and preceded *Benedict* III. than many we yet diſcover. And ſince it is delivered with *aiunt* and *ferunt* by many, ſince the

it; but *Photius* the P
demned by the Fourth
cil, for Uſurping the
and Expelling *Ignatius*
alſo for diſobeying the
of the Apoſtolick See
be ſeen, *Action* I. of th
grown a bitter Enemy
Smyrnæus, and the ex
made no mention of
to conclude it falſe.
ry into Vulgar Errors
Manual of Controverſ

Of WILLIA

That *William* the C
a Baſtard, born of *A*
ter, living in the To
ſeems to carry no
People, confirmed in
Chronologers of no

Times to practice; and therefore only ſerves for an Error of the like Nature with that of ſome Perſons taking *Sanguis Draconis* for the Blood of a Dragon, when it is the Gum of a Tree. By ſomewhat the like Miſtake is the Name of Sir *John Haukwood* (whoſe Monument ſtands in the great Church at *Florence*) changed into *John Sharp* by Foreigners, who finding his Name to be *Joannes Acutus*, therefore call him by the Name of *Sharp*, by which Name he is alſo returned into *England*; whereas indeed they there omitting the *h* in *Latin* as frivolous, and the *k* and *w* as unuſual, they thereby turn *Haukwood* into *Acutus*, and ſo by Miſtake we have Sir *John Sharp* for Sir *John Haukwood*. See *Verſtegan*, 302.

Of GOLD-MINES.

Tho' we read in the Law Books *De aurifodinis* and *Argentifodinis*, yet it is affirmed by Merchants that have travelled for Gold, that there are Silver-Mines, that is, there is Oar or Soil of Silver digged out of the Earth, and out of that by Art is Silver tried; but there is no Oar or Soil of Gold, but it is Gold originally in ſmall Sand or Duſt, which being waſhed down to the Shoar, it is found by the yellowneſs of the Water, as in the Rivers *Tagus* and *Pactolus*. And this is confirmed by *Job*, Chap. 28. ver. 1. and 6. *Surely, there is a Vein for the Silver, and a place for Gold where they find it.* And ſoon after, *The Stones of it are the place of Sapphires, and the Duſt of it is Gold.* And yet for diſtinction ſake, it is called *Aurifodina*. See *Cokes* 2 *Inſt.* 579. See Gold in *METALS*. Of the Gold of *Ophir*. See in *COINS*.

Of

Of Errors

Of the MARSHES *of* WALES.

Marſhes of *Wales* is a Name corruptly uſed; Marſhes are properly marſhy Grounds; it was anciently called the *Mearces* of *les*; and the *c* being in our ancient Lan-ge pronounced as *k*, it was in Pronuncia- the *Mearkes* of *Wales*, i. e. the Marks, nds, or Limits of *Wales*. So one of the en Kingdoms, in the Time of the *Heptar-* was called *Mercia*, after the *Latin* Name, of our Anceſtors it was called *Mearkenland* *Mearkenryc*, that is, the Country or King-n marked or limitted out. And hereunto ordeth our Name of *Mearſtones*, which uld be *Mearcſtones*, that ſtand for Marks Bounds to divide Lands. See *Verſt.* 157.

that they ſhould have the Name of Lord prefixed, is a manifeſt Error, ſince Mayor of it ſelf ſignifies Lord.

Of the firſt COMMUNITY *among* MEN.

Ancient Writers much Celebrate the State of the firſt Men of the World, telling us at that Time all Things were common, and the Terms of *Mine* and *Thine* were not known, which yet we know not how to grant, ſince it is evident in *Abel* and *Cain*, that tho' they were Brethren, yet had each of them their diſtinct Families and diſtinct Poſſeſſions: For how elſe could they have offered a Sacrifice to God? Or how could that which was offered in common by them be Accepted and Rejected? By which it doth manifeſtly appear, that from the beginning of the World things were accounted as of Right, belonging to him who was the firſt Occupant, and that every One did challenge that to be his own, which by his Labour, Induſtry, or good Fortune he had got Poſſeſſion of.

Of Things being in Common among the firſt Inhabitants of the Earth.

Of NESTOR *being ſaid to live Three Hundred Years.*

In this Computation it is only meant that *Neſtor* lived ſo long as that Motion laſted, wherein the Sun performed Three Hundred of its yearly Courſes, or the Earth, One Thouſand and Ninety Five Circuits about its own Axis. And theſe ſort of Alluſions are common, as that our Saviour is ſaid to be three days in the Grave, yet was it but one day and two pieces of days.

Of

ture, that there never
to the Eldeſt in Years, t
in the Examples of *He*
and *David*, and that th
given to *Shem*, for tha
Abraham, the Prophets,
ſcended of him, ſo that
low the Vulgar *Shem f*
the Septuagint *Shem fr*
with *Pereius*, *Shem fra*
The famous Brother of
cious Readers. And in
Saviour, 'tis ſaid, *Abr*
Iſhmael, who was the F
Jacob, (not *Eſau*, who

As to Dr. *Heylin*, a
affirming that St. *Pete*
Dr. *Pearſon* hath anſw
proved that he was at *I*
Penelope, famous in
Locryphon reproaches
many Adulterers

Errors in Chronology. See *Vol.* 1. p. 202. *Vol.* 2. p. 81. about *Brute*, Vol. 1. *p.* 205.

Of Anatomiſts about the Infuſion of the Soul. See in *MANKIND*, *Vol.* 1. p. 482.

The Error about boiling Gold in Broth. See in *METALS*, Vol. 2. *p.* 32.

The Error of thoſe Philoſophers, who told *Gelon* King of *Sicily*, the Grains of Sand were innumerable. See *p.* 135.

Dr. *Cave*'s Vindication of *Euſebius*, from the Erroneous Opinion of his being an *Arian*. See *Euſebius* among the Hiſtorians in the Treatiſe of *HISTORY*.

About *Greece* being the Mother of Arts and Sciences, *Vol.* 2. p. 46.

Some Erroneous Opinions about the *Salique* Law. See in *LAW*, *Vol.* 1. p. 329.

Errors in the *Julian* and *Gregorian* Account, called *Old Stile* and *New Stile*. See in *ASTRONOMY*, p. 273, 274.

The Painting the Devil black, is not uſed by thoſe Natives who are of a black Complection, for they repreſent him white; therefore is it an Error to aſcribe Black alone to that Fiend. And here we may obſerve that anciently among the *Pagans*, the word *Dæmon* was often taken in the better part, but amongſt us Chriſtians it is attributed only to Evil Spirits. So the word *Conſpiracy* in *Latin* and *French*, is uſed for an Agreement, to do a good or an evil Thing, but now we always underſtand it in the Evil part. Perhaps it is no ordinary Error in us to give Preference to the right Hand in Walking, *&c.* ſince the *Turks* upon a good Conſideration prefer the left Hand before the right, being thereby made Maſter of his Sword with whom he walks. See before in the Treatiſe of *AUGURY*, p. 320. and the ſuperſtitious Cuſtoms there recited.

The

Of Errors

The naming Vegetables and Plants by Hu-
ıe Names, tho' of great Antiquity, cauſeth
ıy Errors among the Vulgar, who conceit
ıt Virtues in their Natures, from being
ıed of the ſame Appellation with Saints,
So *Paul*'s Betony is but derived from
lus Ægineta, an ancient Phyſician of *Ægina*,
is no more than Speedwell, tho' the Peo-
have great Opinions thereof, in reference
ıt. *Paul*. The like Expectations are raiſed
n *Herba Trinitatis*, which only obtained
: Name from the Figure of its Leaves. *In*
ium Solis, the Epithet of the Sun, hath in-
ged its Opinion, yet had only that Name
ıuſe it grew plentifully in the Mountains of
r. So are they deceived in many others,
n Horſe-Raddiſh, Horſe-Mint, Bull-Rush,

feſtly untrue in his Book of Animals, for the original of the Chicken is in the White, and its Nouriſhment ſuck'd in thorow the Navel out of the Yolk.

Tho' in the Reign of the Emperor *Severus*, we read Three Thouſand Women were Indicted for Adultery, and that almoſt all Women were Courtezans; yet might they not be in Verity ſuch, ſince the *Nicolaitans*, to avoid the Suſpicion of Jealouſy, proſtituted their own Wives; and the *Grecians* called the fair *Helena* a Courtezan, only becauſe *Xeuxis* the Painter who had drawn her Picture very fine, took Money of every one that would ſee her.

Tho' among the ancient Philoſophers, many were ordinarily eſteemed Atheiſts, ſuch as *Epicurus*, *Lucretius*, &c. yet an Atheiſt among the Pagans, might be the beſt Chriſtian, for in believing no God of their Multitude, they perhaps believed there was a more Divine Creator.

So a certain Philoſopher declared to one of the Emperors, that when he writ in earneſt, he writ in the Name of One God, and when in jeſt he writ in the Name of many. And it is ſaid of *Triſgemiſtus*, that he was ſo named becauſe he compoſed a Treatiſe of the Trinity. See in *RELIGION*, Vol. I. p. 58.

The *Pariſians*, or People of *Paris*, brag their City was never conquered, but that is becauſe upon the leaſt Diſtreſs they compounded with their Enemy.

Tho' it is ſaid all ponderous Bodies reduced to Aſhes abate in their former Gravity, yet Antimony reduced to Aſhes, exceeds rather than diminiſhes; and as to *Archimedes*'s Tryal of the two Diadems or Crowns of the King of *Egypt*, who believing himſelf deceived by his

Goldſmith, and that one of them contain-
much Silver, the King was deſirous to
ow the Truth without breaking them.
erefore *Archimedes* cauſed two Veſſels to be
de of equal bigneſs, with Receivers under
m, and cauſed them to be filled brim full
Water, and therein he did put theſe two
wns aſunder, and gathered up the Water
y circumſpectly, whereof one of the Veſ-
did ſpill more than the other; for Sixteen
nds of Silver did ſpill Thirty Six, and
teen of Gold did ſpill but Twenty, and the
wn Twenty Four, ſo it was Twelve Pounds
er and Four Pounds Gold; which when
himedes, by Arithmetical Proportion, groun-
upon Geometrical Obſervation, found out,
was ſo overjoyed, that he ran about the
ets like a Madman, crying aloud, *I have*
d, I have found. Now ſaith *Gerard Mahues*

and Deſire to pleaſe his Appetite with the Fleſh of it; and that which is called Antipathy between the Vine and the Cabbage is as improper, for the reaſon of their not thriving when ſown near to one another in the ſame Ground, is, becauſe the Nutriment proper for the Growth of one, is alſo proper for the Increaſe of the other, and the Vine draws away all that Aliment by Strength (as great Fiſhes devour the leſs) which ſhould nouriſh the Cabbage, whereby the latter droops and dies. The like may be ſaid of many other Vegetables, which are accounted to bear Antipathies to each other; of which you may ſee more in the Treatiſe of *VEGETABLES* and *AGRICULTURE*, p. 22. And the Ancients, when they did not readily know the cauſe of Hatred between Animals, *&c.* ſheltered their want of Judgment under the Terms of Antipathy, and the like: The true Cauſe and Definition of which Word ſee in the Treatiſe of *ANIMALS*, p. 7.

See the Treatiſe of *Animals*, p. 6.

See *Primroſe*'s Popular Errors in Phyſick, where he declares, 1. The deceitful Judgment upon Urin; 2. That the Sex, or a Woman with Child, are not to be known thereby; 3. That Gold is in vain boiled in Broth for a Conſumption. See Gold in our Treatiſe of *METALS*. 4. That ſtrong Drink is unwholſome drank in a Morning; 5. That ſtrong Waters are very ill after groſs Meats, becauſe they drag the Meat down to the bottom of the Stomach before it can Concoct, and have its proper Digeſtion; 6. That red Cloaths are not preferrable above others for the Meaſles; 7. That it is not hurtful to Purge in the Dog-days; 8. That old Men may uſe Phlebotomy; 9. That any Vein in the Arm is alike to bleed in;

Popular Errors in Phyſick.

18. That the Seventh
Evil, is not to be min
monial Cup is Poyſon
dangerous, and moſt
Fume of Tobacco goe
19. That all Vomits
mach being made to
unleſs in caſes of P
ways be fetched out
20. That the Prove
Milk is to be waſhed
Curdle it on the Sto
Poyſon; 21. That t
is but a fooliſh Per
its Univerſality, ſi
be a Remedy for m
Tranſlation of *Primu*

Dr. *Brown*'s Inquiries into the Errors here recited.

See Dr. *Brown*'s In
Vulgar Errors, *viz.*
A Diamond broke
That Glaſs is Poyſ
kills without Report

Eradication; Or fatal to dig it up; That Bays preſerve from Lightning; Bitter Almonds a Preſervative againſt Ebriety; That Camphir cauſeth Impotency; That an Elephant hath no Joints; A Horſe and Pidgeon no Gall; That a Beaver caſtrates himſelf when hunted; That a Badger hath Legs on one ſide ſhorter than the other; That a Bear brings forth Cubs informous; Of the long Life of Deer; That a King's Fiſher ſhews the Wind; Of the Baſiliſk, Gryphin, Phœnix; That a Salamander lives in Fire; That the Amphiſbena hath two Heads; Vipere force thro' the Body of their Dam; That Hares are each Male and Female; That Moles have no Eyes; Lampries many; Snails two, and thoſe at the end of their Horns; That the Camelion lives on Air; That the Oſtridge digeſts Iron; Of the Unicorn's Horn; Of Swans ſinging before Death; That the Fleſh of a Peacock corrupts not; That Storks will only live in Republicks; That Whelps are Blind Nine Days; Of Antipathies between a Lyon and Cock, Toad and Spider; See in *ANIMALS*; That an Ear-wig hath no Wings; That the Chicken is made out of the Yolk of the Egg; That Snakes ſting; That Man hath only an erect Figure; The Heart in the left ſide, and Pleuriſies only on the left ſide; That the right Hand is aſſignable only to one Side; That Men ſwim naturally; That Men drowned float on the Ninth Day; That Women drowned ſwim Prone, Men, Supine; That Men are heavier dead than alive; That Jews naturally ſtink; Of the Climacterical Year, Sixty Three. (See in *ARITHMETICK.*) Of the Dog days; Of the Pictures of the Pellican, Dolphin, Graſhopper, Serpent tempting *Eve*; *Adam* and *Eve* with Navels;

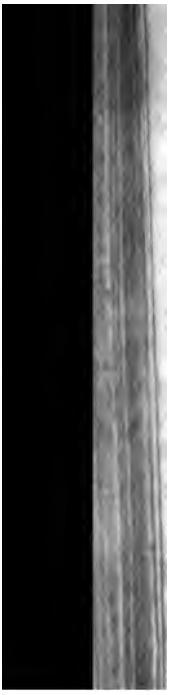
Of Errors

r Saviour with long Hair; *Abraham* facri-
ng *Iſaac*; *Moſes* with Horns; Scutcheons
he Twelve Tribes; The Sibyls; Picture of
Death of *Cleopatra*; Nine Worthies; *Jep-*
ſacrificing his Daughter; *John* the Baptiſt
Camel's Skin; Of St. *Chriſtopher*, St. *George*,
Jerom: Of Mer-maids, Unicorns, and Hie-
lyphical Pictures of the *Egyptians*; Of an
re croſſing us; Owls appearing ominous;
ling of Salt; Breaking the Egg-ſhell; True
ver's Knot; Cheek burning; Speaking un-
the Roſe; Smoak following the Fair; Hair
on Moles; Pairing of Nails; Lyons Heads
on Spouts, *&c.* Concerning the beginning
the World; That the Earth was ſlenderly
opled before the Flood; Of Eaſt and Weſt;
the Seven Heads of *Nile*; Its Greatneſs and
ndation; That it never Rains in *Egypt*, &c.
the Red-Sea; Blackneſs of Negro's; Of

Joan; *Epicurus* the Philoſopher; That *Hannibal* eat thro' the *Alps*, with Vinegar; That *Xerxes*'s Army drank whole Rivers dry, *&c.* To all which Doctor *Browne*, gives many demonſtrations to prove their Falſities, and renders moſt of thoſe Opinions to be Abſurd, and doubtful, if not wholly falſe.

There hath been likewiſe Publiſhed a Refutation of Doctor *Brown*'s Enquiry into Vulgar Errors, the Author whereof is *Alexander Roſs*.

The End of the Second Volume.



TAB

TO

Both VOL

A.

ABBEY of *Weſtminſter* bu
Academicks, Vol. 1. p
Accompt of Years fro
ction of the Temple
Acre of Land, how m
195.
Acroſticks, V. 2. p. 79.
Action at Law for Baſtards, *&c.* V.
Actions in the Delivery of an Ora
Affinity of *Indians*, &c. *V.* 2. p. 36

Affairs of *Theodates* manag'd ill, notwithſtanding all endeavours to the contrary, *V.* 1. *p.* 284.
Ages, Four chiefly famous, *V.* 2. *p.* 130.
Agonius, V. 1. p. 55.
Air, by whom held to be the firſt Principle, *V.* 1. *p.* 7. Opinion thereof, 9. Treated of as an Element, 123. How different in ſeveral Countries, 125, 126. How produces Winds, 428, 429. How cauſeth Conſumptions, 428, 503. Inſtruments invented therein, 452. Why not mention'd by *Moſes*, in the Hiſtory of the Creation, 512. Airy Meteors, 418. Armies in the Air, 422. How Clouds ſwim in the Air, 429. Regions of the Air, 431, 432. Of Flying in the Air, *V.* 2. *p.* 352, 353. Colours ſubject to the Air, 444. Apparitions in the Air. See *Apparitions* below.
Alchoran, V. 1. p. 97, 334, 335.
Alderman, who the Firſt in *London*, V. 1. p. 224.
Alecto, &c. *V.* 2. *p.* 77.
Allay of Silver and Gold, *V.* 1. *p.* 371, 378.
Almicanters, V. 2. p. 256.
Alphabet, produceth many Languages. See *Languages* in L.
Amber, V. 1. p. 148, 451. V. 2. p. 446.
Ambroſia and Nectar, *Vol.* 2. *p.* 77.
Amphibology, V. 1. p. 225. V. 2. p. 100, 337.
Amphiſcii, or *Aſcii*, V. 1. p. 131.
Anabaptiſts, V. 1. p. 72.
Anagrams, V. 2. p. 78.
Anatomy, V. 1. p. 472. V. 2. p. 486.
Anchorites, their Hiſtory, by whom Writ, *V.* 1. *p.* 306.
Angels defined, *V.* 1. *p.* 28. Their Eſſence, *&c.* 28. Their Apparitions, 29, 30, 31. Their Number, 32. Of the World made by them, 94. Who cauſed himſelf to be receiv'd as one, 95. Their Nine Orders, *V.* 2. *p.* 133.
Annals, what, *V.* 1. *p.* 286. Of *Zonaras*, 296.
Antæci, V. 1. p. 131.
Antipodes, by whom firſt held, *V.* 1. *p.* 8, 131. *V.* 2. *p.* 506, 512.
Antipathy between Nations, *V.* 1. *p.* 64, 158. Between Beaſts, *V.* 2. *p.* 7. Between Plants, 22, and 529.
Antiperiſtaſis, V. 1. p. 432.
Antiquity of Hiſtory, *V.* 1. *p.* 202, 459. *V.* 2. *p.* 81.
Apollo, V. 1. p. 51, 53, 54, 64. V. 2. *p.* 77.
Apothecaries Weights, *V.* 1. *p.* 393, 394.
Apozetici, V. 1. p. 10.

The TABLE.

Angels, *V.* 1. *p.* 29. Of God, *V.* 2. *p.* 126. Of
&c. Of Ghoſts, 367, 368. Of *Samuel*; See
eams, 358. In the Air, 341. and *V.* 1. *p.* 418,
ppearing Meteors, 418, *&c.*
V. 2. *p.* 343. Golden-Apple, 20. See *Fruits* in F.
1. p. 518, 545. V. 2. p. 33, 445.
2. p. 32, 33.
rows, *V.* 1. *p.* 108, 451. *V.* 2. *p.* 348.
2. p. 155, 344, *&c.* His Death, 348.
2. p. 170.
many Kinds, *V.* 2. *p.* 96, 97, 98.
. p. 41. Defined, 188.
p. 9. His Philoſophy, 5. Death, 118.
vanquiſh'd, *V.* 1. p. 238.
recians, Romans, &c. *V.* 2. *p.* 217, 218, *&c.* How
anciently, 370. See *Battles* in B.
Lyons for *England*, firſt uſed, *V.* 1. *p.* 219. Bla-
p. 392. Quartered with *France*, *V.* 1. *p* 225.
th *Scotland* and *Ireland*, 239. Of the Epiſcopal
d, *V.* 2. *p.* 392. Of the Nobility, 395. Of Coun-
Of foreign Princes, *&c.* 406.
tic Circle, *V.* 1. *p.* 122.

B.

Bacchus, V. 1. p 51, 52, 53, 54, 56.
Ball, for Play, *V.* 1. *p.* 107, 108.
Baliſtæ, Engines of War, *V.* 2 *p.* 349.
Baniſhment, Examples therein, *V.* 1. *p.* 11, 12.
Bank of *England*, V. 1. p. 252, 254.
Bannerets, V. 2. p. 390.
Baptiſm, V. 1. p. 68, 85, 100. Sin after Baptiſm, 81. *Arrian* Baptiſm, 95.
Barons firſt called by Writ, *V.* 1. *p.* 222. *Barons* of *England*, *V.* 2. *p.* 402, *&c.*
Baronets inſtituted, *V.* 1. *p.* 239. See *V.* 2. *p.* 390.
Barter and Traffick, *V.* 1. *p.* 40.
Baſtards, V. 1. p. 43. Their Diſtinction of Arms, V. 2. p. 389. *Baſtard* Comets, *V.* 1. *p.* 418.
Bath, *Spaw*, and other Waters, *V.* 1. *p.* 89. *Bathing* or *Bagnio*, 542. V. 2. p. 505.
Battalia of the *Grecians*, V. 2. p. 217. Of the *Romans*, 218, *&c.*
Battalion of Foot, how many, *V.* 2. *p.* 221.
Battels and Wars, *V.* 1. *p.* 208, 220, 222, 224, 225, 231, at *Haſtings*, 216. At *Boſworth*, 232, 234, 238. Of *Naſeby*, 241. Of *Monmouth*, in the *Weſt*, 242. In *Hungary*, 244. At Sea, 244. At *Spires*, 247. At *Hochſtet*, 247. At *Caſſano*, 248. At *Ramilly*, 249. At *Turin*, 250. At *Almanza*, 251. At *Audenard*, 253. At *Mohilow*, 253. At *Wynnendale*, 253. At *Pultowa*, 255. At *Blaregnies* or *Taſnieres*, 256. At *Almanera*, 257. At *Creſſy*, 270. At *Poictiers*, 271, 273, 274, 278, At *Obrick*, 279, 282. V. 2. *p.* 317.
Famous Battels fought throughout the World, *V.* 2. *p.* 228, 231, 232, *&c.* 359.
Battering Ram, deſcrib'd. *V.* 2. *p.* 220.
Batteries with Canon, *&c.* at what diſtance made, *V.* 2. *p.* 248.
Beans, a Charm therein, *V.* 1. *p.* 55. *Pythagoras* forbid them, his Diſciples, 8. See *V.* 2. *p.* 21, 24.
Beaſts, V. 1. p. 35. Sacrificed. 49, 50, 55, 56, 59. Worſhipped, 61, 62, 64. Their Generation, *&c.* *V.* 2. *p.* 1, 2, 3, *&c.* *Beaſts* have ſpoke, 339, 340. Strange kinds of *Beaſts*, V. 1. p. 164, 441, 442, *&c.* Bones of ſtrange *Beaſts*, 441, 442, 443, 447. How many ſeveral Kinds, *V.* 2. *p.* 458.
Beauty, V. 1. p. 35, 41, 42, 494.

Bible, new tranſlated, *V.* 1. *p.* 239. Num
in, 77.
Billingſgate built, *V.* 1. *p.* 218.
Billets. their Length, *&c.* V. 1. p. 400.
Birds, aſcrib'd to the Deities, *V.* 1. *p.* 6
Their Actions, *&c.* V. 2. p. 5, 6, 7. H
Their Bearing in Heraldry, 385. Div
Birds, 319, 320, 487. Birds curiouſly
489. *V.* 2. *p.* 159. 162. Their Singin
Painted Dragon, *V.* 2. *p.* 440.
Bird-Lime, how made, *V.* 2. *p.* 475.
Biſhops and Miniſters Conſecration, *V.* 1.
Biſhopſgate built, *V.* 1. *p.* 231.
Blazing Stars. See *Comets* in C.
Blue-Coat-Boys, *V.* 1. p. 236.
Blind Organiſt could diſtinguiſh Colour
Blood. Its Circulation firſt diſcovered,
Circulates, 483. How ſtop'd, *V.* 2.
cauſeth Madneſs, *V.* 1. *p.* 517. B
Bloody, and other Rains, 429, 430.
Body. The Science thereof, *V.* 1. *p.* 27.
Bodily Diſeaſes, 501.
Bones. Their Number in Man, *V.* 1.
Bones of Beaſts, *&c.* 441, 442, 443,
Book Writ with one Pen, *V.* 1. *p.* 30

Britain, whence the Name, *V.* 1. *p.* 205.
Brothell. See *Stews* in S.
Bruſſels. The Remarkables there, *V.* 2. *p.* 132.
Bucklers. See *Shields* in S.
Bullets and Shot, how proportion'd, *V.* 2. *p.* 246, 478. Wound of a Tin Bullet dangerous, 33.
Burning Glaſſes, *V.* 1. *p.* 463. *V.* 2. 161, 455.
Burning for Herely, *&c.* V. 1. p. 361, 501.
Burſe. See *Exchange* in E.

C.

Alcination, what, *V.* 1. *p.* 551. *V.* 2. *p.* 33, 36.
Calice won, *V.* 1. *p.* 225. Loſt, 237.
Calf, fell down from Heaven, *V.* 1. *p.* 431. Lifted every day by *Milo*, V. 2. p. 345. Adored by the *Egyptians*, V. 1. p. 57.
Calviniſm, V. 1. p. 71.
Cannon, their different Names, Powder, Bullet, and the Execution thereof, *V.* 2. *p.* 245, 246.
Canon Law. See *Civil Law* below.
Canonical Books of Scripture, *&c.* V. 1. p. 77, 100.
Canutus, King of *England*, his Title, *V.* 1. *p.* 214.
Capitol at *Rome*, V. 1. p. 57.
Cards invented, *V.* 1. *p.* 108.
Carmenta, V. 1. p. 55.
Carrat of Diamonds, *&c.* V. 1. p. 412. Of Gold, 371.
Caſtle of *Windſor* built, *V.* 1. *p.* 225.
Caſtor and *Helena*, the Fiction, *V.* 2. *p.* 76, 341. *Caſtor* and *Pollux*, 78. The Meteors, 341.
Cataline Conſpiracy, when, *V.* 1. *p.* 293.
Catapulta. Engines of War, *V.* 2. *p.* 349.
Catoptricks, V. 2. p. 452.
Cauſes and Effects defin'd, V. 2. *p.* 106. Secondary Cauſes or Chance, V. 1. *p.* 11. Defin'd, 25. Cenſured, 26.
Celeſtial Part of the World, V. 2. p. 253.
Cerberus, V. 2. p. 76.
Ceres, V. 1. p. 51, 56.
Chalk, V. 2. p. 38.
Characters or Letters. See the Treatiſe of *Grammar* and *Languages*.
Characters of Cities and People of *Europe*, *&c.* V. 1, p. 154, *&c.* Of Hiſtorians, *&c.* 288.

. 234, 236.
76.
d, V. 1. p. 226.
07.
nd Education, V. 1. p. 43, 482. V. 2. p 119.
. p. 62. Their Blood by whom mingled in the
Not capable of Dreams till they are Four Years
58.
Charles I. V. 1. p. 240.
Opinion about the Time thereof, V. 1. p. 202.
ath, *ibid.*
, V. 1. p. 203.
hom firſt ſolemnized, V. 1. *p.* 208.
difference of Computation therein, V. 1. p. 202.
urope, 205.
art of Hiſtory, V. 1. p. 286.
l's firſt Founded, V. 1. p. 210.
er's Weſtminſter, 210, 215.
rgh, 211.
ment Dane's, 214.
Martin's le Grand, 217.
's in the Fields, 218.

Clergy. See *Prieſts* in P.
Climacterical Year, V. 2. p. 132, 133.
Clime or *Climate*, what, V. 1. p. 134.
Clocks. See *Dyals*, D.
Clouds, V. 1. p. 429.
Coals, V. 2. p. 37. Coal Mines, how drained, 39.
Cock fighting, how ordained, V. 1. p. 106.
Cogitation, V. 2. p. 89.
Cold Herbs, V. 2. p. 20, 21, 23.
Coloſſes large, V. 1. p. 46, 61, 62, 63.
Colours defined, V. 2. p. 442.
Colures (Two) what, V. 1. p. 111. V. 2. p. 255.
Commandments Ten, V. 1. p. 1. Why delivered ſo ſhort, 37. V. 2. p. 135.
Comedy. See *Plays* and *Players*, P.
Commentaries, what, V. 1. p. 286.
Comets, V. 1. p. 417, 425, 426. V. 2. p. 258.
Commachio in *Italy* ſeized by the Imperialiſts, V. 1. p. 252.
Commodities of *Europe*, V. 1. p. 148, 149.
Commodities of *England*, how reckoned, V. 1. p. 399.
Common People, their Diſpoſition and Nature, V. 1. p. 152.
Common Council of *London*, firſt ordained, V. 1. p. 366.
Common Law, its Original, V. 1. p. 215, 338.
Common Wealth, not to compare with Monarchy, V. 1. p. 185.
Computation of Things ſeem impoſſible, V. 2. p. 135, 148, 150. Of Time, ſee *Chronology.*
Communication, Art, V. 2. p. 164.
Conduits in *London* built, V. 1. p. 227.
Conſtellations in the Heavens, and their Meaning, V. 2. p. 260, 261, 262, *&c.* 282, 283, *&c.*
Continents, V. 1. p. 135.
Copernican Syſtem, V. 2. p. 147, 252.
Copper, how numbred, V. 1. p. 399. Its Compoſition, 546. V. 2. p. 33.
Cordial Waters not good after eating, V. 2. p. 529.
Corn firſt ſold by Weight, V. 1. p. 224. Feeding thereon derided by the *Tartars*, V. 2. p. 24. When to Sow it, 16, 17. Kept from freezing in Winter by the Snow, V. 1. p. 431. Rains of Corn, 429.
Covenants and Contracts, V. 1. p. 40.
Councils (General) See in G.
Councils of *Spain*, &c. V. 1. p. 331.
Counterſcarp, what, V. 2. p. 240.

of *High-Commiſſion*, Erected by K
of *Aids*, &c. in *France*, 330, 331.
of *Denmark*, 332. See the Treati
Courts of Law formerly followed the Ki
Coin of Farthings and Half-pence, *V.* 1.
Coins in general, *V.* 1. *p.* 370, 371, 372,
Coin of *England* Refin'd, *V.* 1. *p.* 237, 24
Coin of Paper and Paſtboard, *V.* 1. *p.* 45
Cramp, how cauſed, *Vol.* 1. *p.* 504, 537,
Creation of the World. See *World*, W.
Creeds, Vol. 1. p. 78.
Cripplegate, in *London*, Built, *V.* 1. *p.* 23
Crocus Metallorum, Vol. 1. p. 518.
Croſſes at *Coventry*, *Cheapſide*, &c. why
Crowns of Ivy, Olive, Palm, *&c.* See G
Crown of Gold by whom firſt Worn, *V.*
Crowns of Gold and Silver found out by
Crowns or *Coronets* worn by the Nobility
Crown Officers of *England*, V. 1. p. 189
Crown-work uſed in Fortification, *V.* 2. p
Cures particular and extraordinary. S
550. *V.* 2. *p.* 342.
Cuſtom of Pledging one another, how
Of *Shrovetide*, ibid. Of *Chriſtmaſs*
Law, 338. Cuſtoms and Practice

D.

Dance about the Altar: *V.* 1. *p.* 50, 56. In Armour, 109. Morrice-Dancing, 354. Dancers and Tumblers, *V.* 2. *p.* 352.
Danes came into *England*, V. 1. p. 211. Murdered on St. *Brice's* Night, 212. *Danegelt*, 215. *Daniſh* Law, 331.
Darts and *Arrows*, V. 1. p. 108, 451. V. 2. p. 349. See *Shooting* in *S.* and *Archery* in *A.*
David's Pſalms, when Tranſlated, *V.* 2. *p.* 84.
Dauphin of *France*, whence and why the Name, *V.* 1. *p.* 271.
Day how divided, *&c.* V. 2. p. 266, 276, 277. How managed by Sir *Walter Rawleigh*, V. 1. p. 303. Days lucky or unlucky, *&c.* V. 1. p. 96, 299, 300, &c.
Dædalus and *Icarus*, V. 2. p. 76.
Dæmons defined, *V.* 1. *p.* 28. Nine Orders of them, 33. Their Deluſions to Men, *V.* 2. *p.* 337, 338, 340. Their Power, 339, 340, 341.
Death protracted three Days, *V.* 1. *p.* 7. Suddain Deaths, *V.* 2. *p.* 311. Given without breaking Armour, or fetching Blood, 347.
Dead Bodies preſerved, how, *V.* 1. *p.* 63.
Dead Perſons appeared, *V.* 2. *p.* 359. Why burnt to Aſhes anciently, 368.
Decalogue. See *Commandments* in *C.*
Dedications, V. 1. p. 55.
Definition, V. 2. p. 94.
Degree, V. 1. p. 111, 132, 133. V. 2. p. 152. Degrees of the Angle of a Baſtion, *V.* 2. *p.* 241.
Deiſt, what, *V.* 1. *p.* 2.
Deities, why their Multiplicity among Heathens, *V.* 1. *p.* 24, 58. Chief Deities of Nations, with their Attributes, *&c.* 59. See *Gods* in *G.*
Democracy, V. 1. p. 188.
Devils. See *Dæmons.*
Deviſers of Puniſhment firſt experienced in themſelves, *V.* 1. p. 220, 221.
Dew, what, *V.* 1. *p.* 433.
Diamonds of the greateſt Size, *V.* 1. *p.* 467, 469, 470. A Rock of Diamonds, 450. *Note*, V. 2. p. 28. Their Weight. See *Carrat* in *C.*

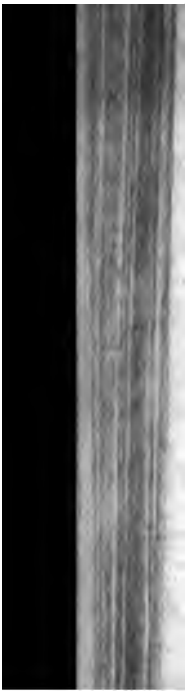
52, 64. V. 2. p. 26. Temple of *Diana*, 182.
V. 1. *p.* 286.
08.
V. 1. p. 333.
g the Chronologiſts, *V.* 1. *p.* 203.
. p. 452.
s Complexions repreſented, *V.* 2. *p.* 133.
to be framed, *V.* 2. *p.* 100, 107.
merica, V. 2. p. 214.
Body, *V.* 1. *p.* 501, 514.
Tower of *London* made, *V.* 1. *p.* 220.
ons, *V.* 2. *p.* 360, 361, 362. See *Omens* and *Ora-*
Dreams, as alſo in the Treatiſe of *Augury*, *Aſtro-*
gick.
ater, *V.* 2. *p.* 353, 357, 465. See *Swimming* in *S.*
r, *V.* 2. *p.* 270, 273.
made, *V.* 1. *p.* 216.
tis, V. 1. p. 238. V. 2. p. 215.
s, V. 2. p. 73.
31. V. 2. p. 356. Noted Dreams, 359. Their In-
364.
k explain'd, *V.* 1. *p.* 518, *&c.*

', by whom firſt divided, *V.* 1: *p.* 7. Their Qualities and
: diſcovered, 8. Of a fifth Element, 128.
e, V. 1. p. 12, 15, 17, 45.
', V. 1. p. 386, 387, 388, 389, 390. V. 2. p. 432.
n, V. 2. p 75.
of War uſed by the Ancients, *V.* 2. *p.* 220, 348, 349.
, when divided into Shires, *V.* 1. *p.* 211. Number of its
:ies, Towns, Pariſhes, *&c.* 159. Got rid of its Wolves,
How many Acres it contains, 396. Its Philoſophers, 16,
:ligion, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, &c. Its
, &c. 106, 107. Its Baths and Medicinal Fountains, 123.
menſions, &c. 144. Whence the Name, 147. Stile of its
150, 189, 460. and *V.* 2. p. 392. Encomiums of ſome
therein, *V.* 1. *p.* 161. Its chief Rivers, 178. Of its Go-
ent, 185, 189. and *V.* 2. *p.* 316. Chronology of the Kings
f, *V.* 1. *p.* 205, 206, 207. Its Kings unfortunate, *V.* 2.
, 313. Omens to *Engliſh* Kings, 331, 332. Hiſtorians of
ation, *V.* 1. *p.* 308, 309, &c. 323, &c. Of its Laws, 337,
cc. Of its Courts, 341, &c. Its Cuſtoms, 339, 349, 350,
)f its Mines and Metals, 374. *V.* 2. p. 33, 34, &c. Of its
Mines, 38. Of its Coins, *V.* 1. *p.* 378, 380, 382, 384, 390.
gliſh Weights and Meaſures, 394, 395, &c. Remarkable
lers have happened in *England*, 420. Mock-Suns and Co-
:hat have appeared therein, 424, 426. Earthquakes have
n *England*, 435. Plagues that have been in *England*,
10. Its Rarities at *Greſham* College, 439. Of *Engliſh* Wo-
nd others, 487. The Dyet of the *Engliſh*, &c. 553. Of its
ls, *&c.* V. 2. p. 2, 3, &c. Of its Plants and Husbandry
f, 12, 13, 14, 15, &c. Of its wondrous Stone Monu-
, 29, 30. Of its Language and Letters, 57, 58, &c. *Eng-*
)ets and Poeteſſes, 83, 84, 85, 86. *Engliſh* Artiſts in Geo-
158, 159, 160, 161. Stately Piles of Architecture in
d, 192, 193, 194. Of the *Engliſh* Epocha, 272. Of the
) Holy-days, 277, 278. Of the *Engliſh* Favourites, 314,
Of the Superſtitious Cuſtoms of the *Engliſh*, 320. The
)ricks of *England*, 393. The Nobility of *England*, 395,
)f the *Engliſh* Fiſh and Fowl, *V.* 1. p. 563. in Cookery
yet, and *V.* 2. *p.* 461, 462, &c. 468, 469, &c. Many In-
)ns in *England*, 488, &c. 497. Of Lent and Faſting-Days
ſet up in *England*, 502, 503. Of the Ignorance of the
', 508, &c. Of the Errors of the *Engliſh*. See the Trea-
Errors.

The TABLE.

p. 270.
1. p. 10.
1. p. 11. V. 2. p. 80.
en to ſome *European* Kings. See *Stile* in *S.*
he Chriſtians, *V.* 1. *p.* 203. Of the Roma
&c. ibid.
V. 1. p. 110, 132. V. 2. p. 255.
Auguſtine the Monk, *V.* 1. *p.* 91. About
Fox the Martyrologiſt, 307. See the Trea
l of this Volume.
e *Monaſteries* in *M.*
of *Europe* and its Kingdoms, *V.* 1. *p.* 1
05. Of *London*, 213. Of the Days of the
f the Months of the Year, 267.
hy it flows ſeven times a day, *V* 1. *p.* 117
1. p. 146. The Fiction, *V.* 2. *p.* 76. Its D
s contained therein, *V.* 1. *p.* 144, 145.
Royal, *V.* 1. *p.* 238. New *Exchange*, 239.
Court. See *Court* in *C.*
ation and Anathema, *V.* 1. *p.* 69, 87, 95.
f a Muſket, *V.* 2. *p.* 240. Of a Cannon,

Fidlers of *Cheſhire* no Vagabonds, *V.* 1. *p.* 359.
Fifth Monarchy Men, *V.* 1. *p.* 241.
Figures of Arithmetick, their Epithets, Properties, Myſteries, *&c.* V. 2. p. 124, 125, &c.
Figures in Geometry, *V.* 2. *p.* 153, 154, &c.
Figure of Speech, *V.* 2. *p.* 93, 94, &c. 105, 106, &c.
Figures belonging to Orthography, *V.* 2. *p.* 62.
Figures in Painting, *V.* 2. *p.* 424, 425, &c.
Figures or Hieroglyphicks explained, *V.* 2. *p.* 65.
Fire, V. 1. p. 7, 9, 20, 49, 53, 126. Fire flying from the Bodies of ſome Men, 128. Fire of *London*, 218, 242. Fire at *White-hall*, 245. Fiery Meteors, 417. Rains of Fire, 429. Fire Vomiting Mountains. See *Vulcano's* in *V.* See *Flame* below.
Firmament, V. 2. p. 253.
Firſt Fruits, *V.* 1. *p.* 54. *V.* 2. *p.* 503.
Firſt Fryars Minors in *England*, V. 1. p. 223.
Fiſh, what Day created, *V.* 1. *p.* 115. How Numbred, 399. What Fiſh moſt wholeſome, 559. Of ſeveral ſorts, *V.* 2. *p.* 7. How taken with Nets, &c. 459, &c. Fiſhing Nets invented, 486.
Flame, why it takes a Pyramidal Figure, *V.* 1. *p.* 212.
Flattery, of particular Writers to Princes, *V.* 1. *p.* 208, 294, 295, 390.
Flora, V. 1. p. 57.
Flying Chariot, Eagle, and Dove, &c. *V.* 2. *p.* 157, 159. Flying of Men, 351, 352, 353. Flying Bridge, 189, 191.
Foot of Land, *V.* 1. *p.* 396. How many to an Acre, *V.* 2. *p.* 147.
Force or Strength, *V.* 2. *p.* 345, 347, 348. Of Cannon, 248. Of Air and Wind, *&c.* 163, 349. See *Earthquakes*.
Fortitude, V. 1. p. 10, 11, 12, 36, 38, 44.
Fortune and Chance defined, *V.* 1. *p.* 25. How painted, *V.* 2. *p.* 431.
Fountains remarkable, *V.* 1. *p.* 118. Medicinable in *England*, 123.
Fowls. See *Birds* in *B*.
Freedom, how given to Slaves, *V.* 1. *p.* 387.
Free-will, V. 1. p. 14, 26, 30, 79.
Furies, V. 2. p. 77.
Fruits, V. 1. p. 563. in *Cookery* and *Dyet*.



Geniography, what, *V.* 1. *p.* 27.
Geometry, how invented, *V.* 2. *p.*
Art, 156, 157, &c.
German Emperor, *V.* 1. *p.* 191.
Glaſs made of Sand, *V.* 1. *p.* 45
518, 543, 544, 547. Malleab
Weather-Glaſs, 125.
Globe of Earth and Water, *V.* 1.
Glutiony, V. 1. p. 553, 567, 568
Gnomon of Dyals invented, *V.* 1.
Gnoſticks, V. 1. p. 94.
God, a Name of four Letters in
Gods and Goddeſſes of the Heath
59, &c. 102, 103, &c. How p
Gold, V. 2. p. 30. Gold-ſanded
in vain, 32. Attracts Quickſi
V. 1. *p.* 373. Gold Mines, 372
in *R.* and *Mines* in *M.*
Golden Apple, what, *V.* 2. *p.* 20
Golden Number, *V.* 2. *p.* 269.
Golden Bull, *V.* 1. *p.* 329.
Goods of the Soul, Body, and Fo
Good Works. See in *W.*
Government of *London* anciently,
Greece, how it got the Name o

Ground Barren, *V.* 2. *p.* 31.
Gulphs of the Ocean, *V.* 1. *p.* 173.
Gun. See *Musket* in *M.*
Gun-Powder Plot, *V.* 1. *p.* 239.
Gun-Powder invented, *V.* 2. *p.* 488.
Guy Earl of *Warwick*, when he lived, *V.* 1. *p.* 212.

H.

H No Letter, *V.* 2. *p.* 48. Ominous to *England*, 316.
Hail, how generated, *V.* 1. *p.* 432. Wonderful Hails, 433.
Half Moons uſed in Fortification, *V.* 2. *p.* 244.
Hall of *Weſtminſter* Built, *V.* 1. *p.* 217. *Blackwell*-Hall, 219. *Vintners*-Hall, 226. *Guild*-Hall, 227. and the Kitchins there Built, 234. *Leaden*-Hall Built, 230. *White*-Hall Built, 235.
Hampton-Court, *V.* 1. *p.* 235.
Hanging in Chains firſt uſed, *V.* 1. *p.* 363.
Hat's or Beglerbegs, *V.* 1. *p.* 194, &c.
Hatred betwixt *Turks* and *Perſians*, &c. *V.* 1. *p.* 64, &c. See *Antipathy* in *A.*
Hawking, V. 2. p. 473, 482.
Head of Man, *V.* 1. *p.* 476.
Heart of Man, *V.* 1. *p.* 482, 483. A Heart of Gold, 469, 470.
Heavens, V. 2. p. 253, 254. See *Sphere* in *S.*
Hegira of the *Mahometans*, V. 1. *p.* 203.
Hemiſpheres, V. 2. p. 258.
Heptarchy, V. 1. p. 209.
Heralds at Arms, *V.* 2. p. 368, 369.
Hercules, V. 1. p. 54. Vol. 2. p. 74.
Hereticks and their Opinions, *V.* 1. *p.* 93, &c. 99. Five Books of Hereſy, by whom writ, 306.
Hermes Seal, what, *V.* 2. *p.* 544.
Herrings, how Numbred, *V.* 1. *p.* 399. Of their wholeſomneſs, 559. How caught, V. 2. p. 462.
Heteroſcii, V. 1. p. 131.
Hieroglyphicks, V. 1. p. 459. V. 2. p. 65, &c. See *Emblems* in *E.*
Hippocrates's Sleeve, what, V. 1. p. 551.
Hiſtory. The Antiquity thereof, *V.* 1. *p.* 202. Hiſtory Lecture of the Univerſity founded, 309. Hiſtories and other Writings loſt, 287, 289, 291, 292, 293, 294, 295, 296, 301. V. 2. p. 80, 82, 83, 84.
Hiſtorians for pure Stile, V. 1. p. 289. Of the *Greeks* and *Latins*, &c. 290. Eccleſiaſtical, 304, 318. Britiſh, 308, 315. Civil 319.

The TABLE.

hers began the Year at *Chriſtmas*, V. 1. p.
how generated, *V.* 1. *p.* 434.
e, *V.* 1. *p.* 355.
V. 1. *p.* 76.
f the Year explained, *V.* 2. *p.* 277.
. p. 63.
. 1. p. 88.
hat, *V.* 1. *p.* 112, 132. *V.* 2. *p.* 205, 256.
n by a Spirit, *V.* 2. *p.* 362.
uſed in Fortification, *V.* 2. *p.* 244.
St. *Bartholomew* founded, *V.* 1. *p.* 218. C
id. Of St. *Mary* Spittle, 223. *Chriſt's* H
s's Hoſpital, *ibid.*
Dyal, *V.* 2. *p.* 207, Hours of the Day, 26
ours of the *Jews*, 277.
y, *V.* 1. *p.* 368.
. 1. p. 75.
the Body, *V.* 1. *p.* 475, 498. *V.* 2. *p.* 12
the Eye, *V.* 1. *p.* 452.
Art, *V.* 2. *p.* 156, 162.
poſed and ſung in the *Roman* Church, *V.*

Inhabitants of *Europe*, their Nature and Diſpoſition, *V.* 1. *p.* 152, 153, &c.
Ink, how made, *V.* 2. *p.* 446.
Inſects, V. 1. p. 448. V. 2. p. 8.
Inſtruments invented in ſeveral Sciences, *V.* 1. *p.* 452, 453. See alſo the Treatiſe of *Inventions*, V. 2. p. 486, 487, &c.
Inſurrections, under *Wat Tyler*, V. 1. p. 226. *Jack Cade*, 230. *Perkin Warbeck*, 233. *Francis Lovel* and *Lambert*, ibid. Of *Hugh Capet* in *France*, V. 2. *p.* 306. Of *Maſſanello* in *Naples*, ibid.
Interregnums, V. 1. *p.* 241, 266, 280.
Inventors of Puniſhment firſt experienced it themſelves, *V.* 1. *p.* 220, 221.
Io the Triumph, *V.* 1. *p.* 103. The Goddeſs, *V.* 2. *p.* 77.
Joan de Pucille, V. 1. p. 229, 490.
Jocular Cuſtoms uſed in *England*, V. 1. p. 349.
Journals. Vide *Diaries* in *D.*
Joy, V. 1. p. 55.
Ireland, conquered, *V.* 1. *p.* 219, 243, 244. Maſſacre there, 240.
Iron, how Numbred, *V.* 1. *p.* 399. Treated of, *V.* 2. *p.* 34. How kept from Ruſt, 35, 479.
Iſlands, their Cauſe, *V.* 1. *p.* 135. Iſlands of the World, 136.
Iſthmus's of the World, *V.* 1. *p.* 137.
Iſthmus's attempted to be cut, *V.* 1. *p.* 45, 164.
Jubilee at *Rome*, when, *V.* 1. *p.* 245.
Judges, V. 1. p. 342, 343, 345. Itinerant, 346, 365.
Judgment or Opinion, by whom ſuſpended, *V.* 1. *p.* 10.
Judgment of the Habits of the Body, *V.* 2. *p.* 119.
Judgment given of the Sick, *V.* 1. *p.* 498.
Julian Account, or Old-Stile, *V.* 2. *p.* 273.
Juno, V. 1. p. 55, 59, 60. V. 2. p. 425. *Juno*'s Temple, 168.
Jupiter, V. 1. p. 57, 104, 110. V. 2. p. 253, 254, 267, 286, 424.
Juſtice, V. 1. p. 36, 37, 39, 44. Obſerved by Tyrants, 186.

K.

Kalends, what, *V.* 2. *p.* 269.
Kentiſh Men, how preſerved their Liberties, *V.* 1. *p.* 216.
King, firſt uſed the Stile of *Great-Britain*, V. 1. p. 212. Of the Iſle of *Wight*, 230.
Kings of ſeveral Countries in *Europe*, ſee in Chronology; their Stile, ſee in Government; their Revenues, ſee *V.* 1. p. 145.

unfortunate, *V.* 2. p. 312.
irt, *V.* 1. *p.* 343.
ured, *V.* 1. *p.* 215. The Diſtemper, 507.
World, to whom ſubject. See *V.* 1. *p.* 144, 166.
91, &c.
arter, and other Orders of Knighthood, *V.* 1. *p.*
ites, *V.* 2. *p.* 2.

L.

. 45, 46, 56. See *Induſtry* in *I.*
World, *V.* 1. *p.* 175.
ection, *V.* 1. *p.* 233.
&c. V. 1. p. 12, 543. Subterranean Lamps, 465.
ver Lamps, 466, 467. A Perpetual Lamp, *V.* 2.
re by Acres, Rods, Feet, *V.* 2. *p.* 147. Its Value,
h purchaſed for a Penny, *ibid.* Rules for Purcha-
1. *p.* 348. See *Earth* in *E.*
irſt ſpoke in the World, *V.* 2. *p.* 40, 41. Languages

of Gavelkind. See in *G.*
Courts. See in *C.*
Lead, where extream ſcarce, *V.* 1. *p.* 373. How Numbred, 399. Melted, how to be held in the Hand, *V.* 2. *p.* 23. Lead Mines, 38.
Leap Year, V. 2. p. 273.
Legion, how many, *V.* 1. *p.* 29. Of the Roman Legions, *V.* 2. *p.* 218.
Lemures, V. 1. p. 55.
Letters of the *Hebrews*, *Greeks*, *Latins*, *Saxons*, &c. *V.* 2. *p.* 40. 41, 42, &c. Letters Impreſſed on the Air, 159. How to be Reflected on a Wall, 455.
Library, of the *Vatican*, V. 1. p. 15. of *Arundel* Houſe, *V.* 2. *p.* 83. *Urbin*, and other Libraries mentioned, 460, 461, 438, 439.
Life imitated, *V.* 2. *p.* 156, 157, 158, 159, 164
Lines, Regular, *&c.* V. 2. p. 152. Line of Battle, 221. Of Defence, 239. Of Life, 209. Lines in Heraldry, 387.
Loadſtone, V. 1. p. 453. V. 2. p. 28, 35, 164.
Logwood, V. 2. p. 444.
London, whence the Name, *V.* 1. *p.* 213. *London*-Bridge. See in *B.* *London*, how governed anciently, 220.
Longitude, what, *V.* 1. *p.* 113, 132, 162. Inſtruments for taking Longitude, 453. See *V.* 2. *p.* 257. Longitude of a Star, *ibid.*
Looking-Glaſſes, V. 2. p. 451, 455, 466. See *Glaſſes* in *G.*
Loretto, Houſe and Treaſury, *V.* 1. *p.* 465, &c.
Lottery, V. 1. p. 238, 258.
Love of our Enemies, *V.* 1. *p.* 2. Love-Feaſts, 52. Love between Animals, *V.* 2. *p.* 6. Among Plants, 24.
Lovel's Inſurrection, *V.* 1. *p.* 233.
Lucothea, V. 1. p. 55.
Luna, V. 1. p. 53, 110. How high from the Earth, *V.* 2. *p.* 147. Its Orb, 253. Its Courſe, 254. Monday named from that Planet, 267. Her Influence and Property, 286. Mock Moons, *V.* 1. *p.* 424.
Lungs, how inflamed, *V.* 1. *p.* 429. Of the Lungs, 474, 476. Diſeaſes of the Lungs, 515.
Lurdane, whence the Name, *V.* 1. *p.* 214.
Luther, V. 1. p. 235.
Lutheraniſm, V. 1. p. 70.
Lynceus, V. 2. p. 77.

The TABLE.

M.

. p. 507, 508. See *p.* 532.
Philoſopher in P.
tchcraft, W. See *Mathematicks.*
and Eccleſiaſtick, *V.* 1. *p.* 188. See *Biſhops* in B.
p. 64, 96, 97, 334. *Hegira*, 203. *Alchoran.*

Body, 501, 502, *&c.* 514. Particular to ſeveral

p. 5, 11, 41, 44, 45. Defined, 472. His Sim-
Hath Pre-eminence of Women, 496. Of Men
it Philoſophers, Poets, Hiſtorians, Painters, *&c.*
ral *Treatiſes.* Vid. *Men* below.
p. 56. See *Lemures.*
. 1. p. 459. V. 2. p. 160, 163, 406. See *Bats*

firſt made, *V.* 1. *p.* 7. Principal Map-makers, 170.
how much anciently, *V.* 1. *p.* 222. And how
no

Medicaments in general, *V.* 1. *p.* 323.
Medicine of the Soul what, *V.* 2. *p.* 88.
Medicinable Earths. See *Earth*, E.
Meeter and Rhime, *V.* 2. *p.* 108.
Melancholy, V. 1. p. 499. V. 2. p. 128, 357.
Melancholy. The Devil's Bath, *V.* 2. *p.* 120. Muſick, an Enemy thereto, *ibid.*
Memory, defined, *V.* 2. *p.* 110. Men of great Memory, *ibid.* Where ſeated, *V.* 1. *p.* 477. The Art of Memory invented, *V.* 2. *p.* 493.
Men, advanc'd for their Merits, *V.* 1. *p.* 44, 45. Worthy Men baniſh'd, 187. Men ſuffer'd by their own Inventions, 220. Men skilled in divers Languages, *V.* 2. *p.* 63. Diſcords of Mens Complexions repreſented, 133. Men changed into Forms like Beaſts, 339. Men of great Strength, 345.
Merchant Taylors Company, *V.* 1. *p.* 233.
Mercury, V. 1. p. 48, 50, 56, 110. V. 2. p. 253, 254, 267, 286.
Mercy V. 1. p. 39.
Meridian, V. 1. p. 112, 132. V. 2. p. 255, 256.
Meum and *Tuum*, V. 1. p. 39. Error thereof, *V.* 2. *p.* 523.
Miles. Their Difference, *V.* 1. *p.* 397.
Milo, his Strength, *V.* 2. *p.* 345.
Mineral Earths. See *Earth*, E.
Minerva V. 1. p. 53, 55. 64.
Mines of Gold, Silver, *&c.* V. 1. p. 368, 372, 373, *&c.* V. 2. p. 36, 37. Firſt Diſcovery of Mines, 494. Lord *Coke*'s Opinion about Gold Mines, 521.
Minories in *London* founded *V.* 1. *p.* 224.
Minutes and Seconds, *V* 2. *p.* 152.
Miracles, properly what, V. 2. p 339. Falſe Miracles, 338, 339. Miraculous Cures, 342, 362. Miraculous Accidents, V. 1. p. 53, 62, 92, 433, 436.
Miſt, what, *V.* 1. *p.* 434.
Miſtery of Letters, *V.* 2. *p.* 44, 46, 51, 57. Of Hieroglyphicks, 65. Of Words, 328. Of Sounds, 120, 121. Of Poets Fictions, 74. In Numbers, 124, 125, *&c.* 148. Myſterious Signification of the Twelve Signs in the *Zodiack*, 261.
Monarchy, V. 1. p. 185, 188.
Monaſtery of St. *Lawrence*, V. 2. p. 186. See 365. Monaſteries ſuppreſs'd, when, *V.* 1. *p.* 235.
Money, V. 1. p. 40, 370, 371, *&c.*
Monmouth's Rebellion, *V.* 1. *p* 242.
Months of the Year, and Feaſts therein, *V.* 1. *p.* 51, 52, *&c.* V. 2. p. 266,

Mountains, V. 1. p. 139. Fire Vomiting
canos.
Muſti, V. 1. p. 334.
Multiplication. Third Rule of Arithmet
p. 139. Multiplication of Numbers, C
Multiplication of Deities. See *Deities*, D
Mum, *Metheglin*, and other Commoditi
Murders committed by K. *Ric.* III. *V.* 1.
Muſcovites, *Epocha*, V. 1. p. 204.
Muſes, V. 2. p. 429, 133. Books ſo nam
nian Muſe, 291.
Muſquet, how far it doth Execution, *V.*
Canon, 248. How to keep it from R
when Furred, 479. The firſt Uſe the
Lord *Brouncher's* Gun, *&c.* V. 1. p. 4
Mutton firſt ſold by Weight, *V.* 1. *p.* 23

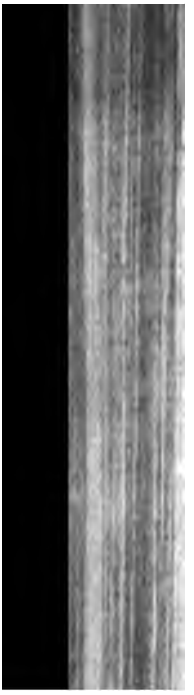
N.

Nadir and *Zenith*, V. 2. p. 256.
Names ominous, *V.* 2. *p.* 316.
Nations converted, *V.* 1. *p.* 91.
Nations known by the Marks they ar
How different in Manners, *&c.* 153,

Newgate built, *V.* 1. *p.* 227.
New Philoſophy, *V.* 1. *p.* 5. See in P.
New Stile, *V.* 1. *p.* 112. *V.* 2. *p.* 274.
New-River Water. See *Water*, W.
New-England, V. 1. p. 240.
Niche, V. 2. p. 75.
Nobility of *England*, V. 2. p. 395.
Noble in Money, V. 1. p. 400.
Nomen Tetragrammaton. See *God* in G.
Nones, what, *V.* 2. *p.* 269.
Noſe, Artificial, of a Man, *V.* 1. *p.* 541.
Numbers, and their Myſtery, *&c.* V. 2. p. 124, 125, *&c.*
Numens, who, *V.* 1. *p.* 48.
Nymphs, V. 2. p. 433.

O.

Oath, V. 1. p. 90. Whoſe Teſtimony received without an Oath, 10. Oath of the *Pythagoreans*, V. 2. p. 130.
Occult Qualities, *V.* 1. *p.* 19.
Oceans, V. 1. p. 172.
Officers of the Crown, in *England*, V. 1. p. 189. Officers of State in *Scotland*, 336. Officers of the Court of *Chancery*, 342. Of *Queen's Bench*, 343. Of *Common-Plea's*, 344. Of *Exchequer*, 345.
Old-Caſtle (Sir *John*) V. 1. p. 228.
Old-Stile, and *New-Stile*, V. 2. p. 273, 274.
Olympiads of the *Grecians*, V. 1. p. 203.
Omens, V. 2. p. 318, 319, 320, 321, 341, 359, 360.
Opium, V. 1. p. 524. V. 2. p. 530.
Opticks defin'd, *V.* 2. p. 450, *&c.*
Oracles, V. 2. p. 333, 336. Ceaſed, 337. Oracle of Dreams, 359. The Oracle of all doubtful Queſtions amongſt the *Turks*, in the *Muſti*, V. 1. p. 335.
Oration, what Actions to be uſed therein, *V.* 2. *p.* 110.
Order of the Garter, *&c.* V. 1. p. 150, *&c.* Firſt inſtituted, 225. Garter Principal King at Arms, 229. His Office, *V.* 2. *p.* 369.
Oran, taken by the *Moors*, V. 1. p. 251.
Ore, found in the Mines, *&c.* V. 1. p. 373, 374, *&c.* 451, 546, 548. Tryals thereof, 375. See *V.* 2. *p.* 30, 31, *&c.*
Orgeones, who, *V.* 1. *p.* 50.



Paintings and Pictures of a curi
457, 460, 462, 464, 470, 485
Paper and Parchment how numb
p. 492.
Papiſts, V. 1. p 66.
Parallels, V. 1. p. 133. Parallels o
Paraſelene, or *Mock Moon*, V. 1. p.
Paraſiti, V. 1. p. 50.
Pardon, general, *V.* 1. *p.* 366.
Peripateticks, V. 1. p. 9.
Pariſhes, how many in *England* form
many in *London*, 238.
Park of St. *James*'s at *London*, V. 1. 1
Parliament, Firſt of Nobility, Clergy
Parliament at *Black-Fryars*, *Londo*
liament, 341, 365. Number o
Table, *p.* 159.
Partridge, and other Fowls, how tak
Paſſions of Man, whence they proceed
Patience, V. 1. p. 2, 12, 36. See *For*
Paul's Church founded *V.* 1. *p.* 21

Peninſula's, V. 1. p. 137.
Penſioners, Gentlemen, firſt appointed, *V.* 1. *p.* 235.
Perception of Things, *V.* 2. *p.* 89.
Perch of Land, how much, *V.* 1. *p.* 396.
Periæci, who, *V.* 1. *p.* 131.
Periſcii, who, *V.* 1. *p.* 131.
Perkin Warbeck, V. 1. p. 233.
Perſons skilled, in ſeveral Languages, *V.* 2. *p.* 63.
Perſons born of low Degree, advanced to great Honours, *V.* 2. *p.* 305.
Perſons concluded unfortunate, *V.* 2. *p.* 310.
Perſpective, V. 2. p. 452, 453.
Perſecutions againſt the Chriſtians, *V.* 1. *p.* 262. *V.* 2. *p.* 135.
Peſtilence, V. 1. p. 125, 126, 226, 509. To know where the Peſtilence is, 533.
Philoſopher, by whom the Name firſt aſſumed, *V.* 1. *p.* 8. Moral Philoſopher, *p.* 2. *Magi* a wiſe Man. See *Magick*, V. 2. *p.* 326. and 358. Who firſt had the Name of Divine Philoſopher, V. 1. p. 8. Philoſophers have governed States, 201. Philoſophers Tree, 545. Philoſophers Stone, 546. Philoſophers, how Painted, V. 2. p. 428. *Engliſh* and other Philoſophers. See in the *Treatiſe* of *Philoſophy*.
Philoſophy, New, V. 1. p. 5. Natural, 4. 27. Several Inſtruments relating thereto, 452. Writer thereof in Verſe, V. 2. p. 81. Philoſophy prohibited by the *Turks*, V. 1. p. 97.
Philothytæ, who, V. 1. p. 50.
Philtre, a Charm, V. 1. p. 13. V. 2. p. 342.
Phyſiology, V. 1. p. 4.
Phyſick, V. 1 p. 27, 56, 497. Vol. 2. p. 35. Phyſical Herbs, 21. Phyſical Virtue in ſome Stones, 28.
Plagiary, V. 1. p. 287, 288. V. 2. p. 46.
Plague, V. 1. p. 242, 256, 509. See *Peſtilence*.
Planets, V. 1. p. 63. V. 2. p. 259, 286, 287, &c. 355, 290.
Plants, V. 1. p. 448, 449. A Perdurable Nature in Plants, 544. See V. 2. p. 10, 11, 12, &c. Whence their Colour may ariſe, 444.
Plantations ſettled in the *Weſt-Indies*, V. 1. p. 240.
Plato, V. 1. p. 8. Vol. 2. p. 134.
Plays and Players, V. 1. p. 108. A Play laſted ſeven Days, 228. See V. 2. p. 73, 82, 83, 120, 440.
Pleas in *French* diſuſed, V. 1. p. 225, 360. Of Pleas, 340. Court of Common Pleas, 343.
Pledging one another. See *Cuſtom* in *C.*

Plots,

unfortunate, V. 2. p. 31
Polydore Virgil. See *Virgil* in *V.*
Polygamy. V. 1. p. 97. V. 2. p. 496.
Pope. V. 1. p. 66, 235. Lives of the
Portſmouth, whence the Name, V.
Poverty, V. p. 13, 100, 305, 310. V
verty, V. 1. p. 7. 10, 11, 12, 39.
Powder, how much for uſe, V. 2. p
Pox, V. 1. p. 234, 509, 517.
Poiſons, V. 1. p. 511, 530, 532.
Prædeſtination anſwered, V. 1. p.
Chance.
Præmunire, V. 1. p. 360.
Præſcience, V. 1 p, 30. V. 2. p. 294.
Precedency of Biſhops, V. 2. p. 392.
Precept, where it cannot learn, V.
Presbyterians, V. 1. p. 71.
Prieſts, V. 1. p. 58, 83. Eccleſiaſtick
Prime, or Golden Number, V. 2. p.
Prime Vizier, V. 1. p. 194
Primum Mobile, V. 1. p. 9. V. 2. p.
Prince of *Wales*, who the firſt, V. 1.
Printing, V. 1. p. 230.
Privilege of the Citizens of *London*, i
V. 1. p. 224.

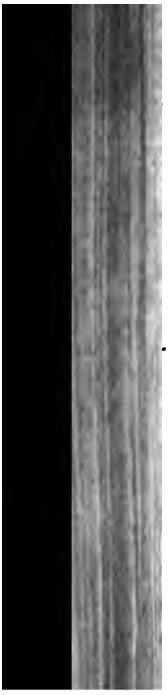
Proſerpine, V. 1. p. 51.
Proteſtants, V. 1. p. 70, 75.
Provincial Councils, *V.* 1. *p.* 100.
Proviſion firſt made for the Poor in *London*, V. 1. p. 236.
Pſalms of *David*. See in D.
Pſammeticus's Invention to find the firſt Language of the World, *V.* 2. *p.* 41.
Pſychology, or Doctrine of the Soul, *V.* 1. *p.* 27.
Ptolemean Syſtem, *V.* 2. *p.* 252.
Publick Pennance the Manner of it, *V.* 1. *p.* 23.
Pulſe of Man, *V.* 1. *p.* 474.
Purchaſe of Land for a Penny. See *Land* in L. Rules for Purchaſing, *V.* 1. *p.* 348.
Purgatory, V. 1. p. 68, 83.
Purifications or Waſhings, *V.* 2. *p.* 125.
Pyramids in *Egypt*, V. 1. p. 164. Deſcribed, *V.* 2. *p.* 178. Pyramids in *England*, V. 2. p. 30. A Pyramid Figure explain'd, *V.* 1. *p.* 153.
Python, the Serpent, *V.* 2. *p.* 77.

Q.

Quadrant and Quadrangle, *V.* 2. *p.* 152, 153.
Quakers, V. 1. p. 74.
Queen's-Bench Court, V. 1. p. 343.
Quickſilver, in Weather-Glaſſes, *&c.* V. 1. p. 125, 377. V. 2. p. 36.
Quoiting, V. 1. p. 103.

R.

Radius, what, *V.* 2. *p.* 151, 195.
Rain, V. 1. p. 429, 430. How far it penetrates into Earth, *V.* 2. *p.* 347.
Rains of Silver, Blood, Milk, *&c.* How cauſed, *V.* 1. *p.* 430. Why violent in Summer, 432. An Inſtrument to meaſure Rains mention'd, 452.
Rainbow, V. 1. p. 426. V. 2. p. 444, 445.
Rape of the *Sabine* Women, V. 1. p. 102.
Rarities, in Philoſophy, *V.* 1. *p.* 19. In Metaphyſicks, 32, 33. In Elements. 118, 119. In Meteors, 427, 430. In Chymiſtry, 452,



tecture, 178. In Astronomy,
Astrology, 294, 295, to 317.
Magick, 338, 339, &c. In Ma
&c. In Dreams, 359, 367, 371
412, 413. In Colours, 445, 44(
In Inventions, 486, 487, &c.
Ravelyns, V. 2. p. 243.
Rawleigh (Sir *Walter*) V. 1. p. 24
Rays to the Eye explain'd, *V.* 2. *p*
Reasons, why the *Turkish* Doctrine
Rebellion of *Wat. Tyler*. V. 1. p. 2
Ulster, 240. See *Insurrections* ir
Refining of Silver Ore, *V.* 1. *p.* 337
Reformation began, *V.* 1. *p.* 234, 2
Reports of Law extant, *V.* 1. *p.* 34
Repositories of Rarities, *V.* 1. *p.* 43
Revenues of Kingdoms. See in the
the *Has* in *Turkey*, 195, &c.
Rhyme and Meeter explain'd, *V.* 2.
Riches, V. 1. p. 11, 63, 383, 46(
V. 2. *p.* 80. See *p.* 179, 180, 1
Dreams, 362, 363.
Richmond in *Surrey*, V. 1. p. 226,
234. Vide *Shene* in S.
Rivers of the World, *V.* 1. *p.* 1

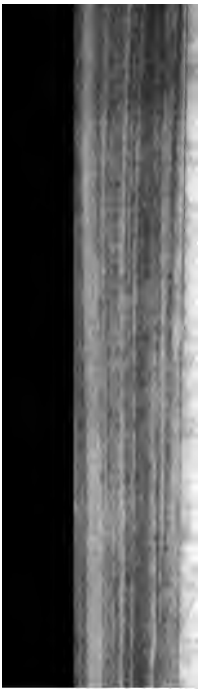
, V 1. p. 102. When Founded, *V.* 2. *p.* 132. Taken Ten
ies, 135. Capitol, 179.
dus and *Rhemus*, V. 1. p. 102. V. 2. p. 76.
k in *Germany*, remarkables there, *V.* 2. *p.* 132.
r firſt Murrain in *England*, V. 1. p. 223.
Mines, *V.* 1. *p.* 372, 373. *V.* 2. *p.* 39.
-Exchange. See *Exchange* in E.
of Law for purchaſing, *V.* 1. *p.* 348.

S.

bbath, or *Sunday* of the Chriſtians, *V.* 1. *p.* 334. Kept on *Friday* by *Turks*, and on *Saturday* by *Jews*, ibid.
ments, Vol. 1. p. 68, 84, 86.
fices, V. 1. p. 103.
g by Sea, *V.* 2. *p.* 212.
g Chariots, *V.* 2. *p.* 157, 349.
ue Law, *V.* 1. *p.* 326, 329.
ſtian Gardens in *Italy*, V. 1. p. 293.
ſon and his Strength, *V.* 2. *p.* 345.
uel's Apparition, *V.* 2. *p.* 339, 361.
s of ſeveral Colours, *V.* 1. *p.* 452. *V.* 2. *p.* 447.
s. See *Dæmons*, D.
, V. 2. p. 445.
rn, V. 1. p. 110. V. 2. p. 75, 253, 254, 267, 286, 430.
, V. 2. p. 73. Upon the Nobility of divers Nations, *V.* 1. 158.
Houſe in *London*, V. 1. p. 234.
icks, V. 1. p. 10.
m, V. 1. p. 228.
ce in general, *V.* 1. *p* 26. Its chief Diviſion, *V.* 2. *p.* 129. why ſalt, *V.* 1. *p.* 117. Its Ebbs and Flows, how cauſed, *d.* Extraordinary Flowing, 430. The Seas of *Europe*, &c. 2.
-Circle, *V.* 2. *p.* 152.
s of Man, *V.* 2. *p.* 133. Defined, *V.* 1. *p.* 478, 479, 480, 1.
a, V. 2. p. 81. Engliſh *Seneca*, *V.* 1. *p* 313.
lio, V. 2. p. 185.
ons, V. 1. p. 2, 459.
nts and Snakes, *V.* 1. *p.* 444. *V.* 2. *p.* 1, 7.
nts, V. 1. p. 43, 44, 45.

See Battles in D
Signs of the *Zodiack*, V. 2. p. 25
tion, *&c.* 282, 283, *&c.* Wha
rule, 290, *&c.*
Silence, V. 1. p. 50, 5. Water
p. 122.
Silk dying, *&c.* V. 1. p. 120. V. 2
Silk Stockings firſt made, *V.* 1. *p.* 4
Silver, V. 1. p. 371, 373. *&c* V.
Sin, Original, *V.* 1. *p.* 78. Chriſ
Baptiſm, 81.
Siniſter, V. 2. p. 133, 287, 320. 3
ers, 347.
Skin of Man, *V.* 1. *p.* 473.
Skull of Man, *V.* 1. *p.* 476.
Slaves, their Manumiſſion, *V.* 1. *p.*
Sleep, a long one, *V.* 1. *p.* 13. S
Sleep, 359.
Sling, for a Stone, the Force there
Slowneſs and Swiftneſs of Motion,
Snow, prejudiceth Man's Sight, *V.*
Solitude, V. 1. p. 10. V. 2. p. 365.
Solſtices, by whom firſt found ou
V. 2. *p.* 255.
Somatica, or Science of Bodies, *V.*

Sound, what it is, *V.* 1. *p.* 481.
Spectacles, V. 2. p. 453.
Speech counterfeited, *V.* 2. *p.* 158. In Beaſts, 339, 340. See *Language*, L.
Sperma Cœti, V. 2. p. 6, 464.
Sphere, V. 1. p. 130. V. 2. p. 154, 155, 158, 254, 487.
Spirit defined, V. 1. p. 28. Spirit of Man, 247. See *Pneumatica*, in P.
Spirits or Ghoſts. See *Apparitions* in A.
Spring Waters remarkable in *England*, V. 1. p. 123. See *Fountains*, 118.
Squadron of Horſe, how many, *V.* 2. *p.* 221.
Stars, of their Number, Light, *&c.* V. 2. p. 258, 259. Wandring Stars, *V.* 1. *p.* 418. Falling Stars, 422. Blazing Stars, 425, 426.
Statua erected to whom, *V.* 2. *p* 81.
Statute Law, *V.* 1. *p.* 338. See *Year Books* in Y.
Stealing of Cattle formerly Pecuniary, *V.* 1. *p.* 366.
Steel, how made, *V.* 2. *p.* 35.
Sterling Money, *V.* 1. *p.* 371.
Stews, the laſt in *England*, V. 1. p. 235.
Stile and Epithets given ſome Kings, *V.* 1. *p.* 150, 163, 460. Of their eldeſt Son, 150. Titles of the Monarchs of the World, 189, 190, *&c.* Of *Canutus*, King of *England*, 214. Of *England* and *France* firſt uſed, 225.
Stile of the beſt Hiſtorians noted, *V.* 1. *p.* 289.
Stocks ſet up in *London*, V. 1. p. 231.
Stocks-Market built, *V.* 1. *p.* 224.
Stoicks, whence the Name, *V.* 1. *p.* 11, 39.
Stones, precious and common. See *V.* 1. *p.* 467. See *Gems* in G.
Stone like Glaſs, *V.* 2. *p.* 454. Stone bred in Thunder, *V.* 1. *p.* 419.
Stone Henge, and other Monuments in *England*, V. 2. p. 29.
Stones of Moſaick Work, *&c.* V. 1. p. 455, 457.
Stones of prodigious Size, *V.* 2. *p.* 179.
Straits of the Sea, *V.* 1. *p.* 172.
Strong Waters ill after eating, *V.* 2. *p.* 529.
Strong Men, V. 2. *p.* 345.
Styx, V. 2. p. 77, 130, 133.
Subterranean Fires, *V.* 1. *p.* 126, 127. See *Vulcano's* in U.
Sun, its Eclypſes and Declenſion by whom found out, *V.* 1. *p.* 6. Eclypſe explain'd, 436. Opinion of the Sun, 7. Feaſts to that Planet, 56, 63. *V.* 2. *p.* 266. How high from the Earth,

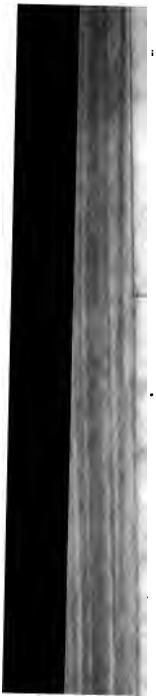


Syllogism, V. 2. p. 90, 97.
Sympathy, V. 2. p. 359, 360, 368
Syon-Houſe founded, *V.* 1. *p.* 229
Syſtems of the World, *V.* 2. *p.* 25;

T

Table of *Europe*, *V.* 1. *p.* 144.
ment-Men, Pariſhes, *&c*
Africa, and *America*, 166. O
Of the *Greek* Letters, 45. Of
gick, 96. Multiplication Table
nery, 247. Of Randoms for M
nets, 292. Table or Figure of
gy, 293. Of Metals and Colour
Tax. very great, *V.* 1. *p.* 227.
Teeth, how whitened, *V.* 2. *p.* 446
Telleſcopes and *Microſcropes*, V. 1.
Temperance, V. 1. p. 12, 36, 38.
Temples, V. 2. p. 168, 169, 173, 1
Tempeſts of Thunder, *V.* 1. p. 420.
Of Wind, *&c.* 434. Of Earth
Tenails, uſed in Fortification, *V.* 2.
Tenets of Chriſtians, Sectaries, *&c*

Thunder, how cauſed, *V.* 1. *p.* 418. Cuſtom of Ringing Bells therein, 419. Counterfeited by King *Salmoneus*, ibid. Remarkable Thunders, 420. To know if a Perſon was killed by Thunder, 534.
Tin, V. 2. p. 33. 37.
Titles, given to Kings of *Europe*, &c. See *Stile* in *S.*
Tournaments, V. 1. p. 228. V. 2. p. 491.
Tower, of *London*, Built, *V.* 1. p. 218. Tower-Ditch, 220. Tower on *London*-Bridge, 229. Tower of *Moſcow*, V. 2. p. 188. Tower of *Morocco*, 189. Towers Built that a Horſe or Coach may go up to the top, 188, 189.
Towns and Caſtles impregnable, *V.* 2. *p.* 237. Towns in Silver, *V.* 1. *p.* 471.
Trabs, a Meteor, *V.* 1. *p.* 417.
Tradition, V. 1. p. 87. Of Magicians, *&c.* V. 2. p. 327.
Tragedy. See *Plays* and *Players* in *P.*
Tranſlation of *David*'s Pſalms, *V.* 2. *p.* 84.
Tranſmutation of Metals, *V.* 1. *p.* 545. *V.* 2. *p.* 34. Of Courage, 22. Of Men into Beaſts, 338. Of Colours, 442, 443, &c.
Tranſubſtantiation, V. 1. p. 68, 100.
Travel, V. 1. p. 46. Noted Travellers, 169, 170, 180. V. 2. p. 214, 215, &c. Travel round the Earth in what Time, 147. Travellers ſilent in paſſing between Snowy Mountains, *V.* 1. *p.* 431.
Treaſurer (Lord) of *Great Britain*, V. 1. p. 345.
Triangle, V. 2. p. 152.
Trinity, V. 1. p. 76, 96. Compariſons thereof, *V.* 2. *p.* 126.
Triumphs, their beginning, *V.* 1. *p.* 102.
Trojan War, who writ thereof, *V.* 1. *p.* 291. *V.* 2. *p.* 81, 83. How long ſince, 367.
Tropicks, V. 1. p. 113, 133 V. 2. p. 256.
Tryals of Ore, how made, *V.* 1. *p.* 375, 376, &c.
Turks, their Religion, *V.* 1. *p.* 64, 65, 96, 334. Their Law, 334. Their Judges and Eccleſiaſticks, 335. Why their Religion ſpreads ſo much, 97. Have no Bells amongſt them, *V.* 2. *p.* 189. *Turkiſh* Moſque in *Conſtantinople* deſcribed, *V.* 2. *p.* 184. Seraglio mentioned, 185. See *Moſques* in *M.*
Tycho Brahe's Syſtem, *V.* 2. *p.* 253.
Tythes, the Hiſtory thereof, by whom, *V.* 1. *p.* 17.



Usher (Bishop) *V.* 2. *p.* 477.
Vacuum, V. 1. p. 5.
Vapours and Exhalations, *&c.* V. 1. 428, 430, 432, 433, 434. 513. V. 2.
Vatican Library. See *L.*
Veins in Man, *V.* 1. *p.* 473, 474, 536, 5
Venner, V. 1. p. 241.
Venus, V. 1. p. 53, 55, 57, 110. V. 2.
Veſta, V. 1. p. 49.
Virgil, the Hiſtorian, *V.* 1. *p.* 288, 299
Virginia diſcovered, *V.* 1. *p.* 240.
Virtue defined, *V.* 1. *p.* 11, 36. Cardi how promoted, 284. How painted,
Viſions, or ſtrange Apparitions, *V.* 2.
Vomits, and *Vomitories*, V. 1. p. 52 530.
Vows of rich Gifts, *V.* 2. *p.* 466, 467,
Voyages under Sea. See *V.* 2. *p.* 349. S
Vulcan, V. 1. p. 56.
Vulcano's, or Fire Vomiting Mountair

W.

Wakes, or Country Feaſts, their C
Wales, Prince. See in *P.*

p. 35. *V.* 1. *p.* 118. New River brought to *London*, 239. Watry Meteors, 418. Medicinal Waters, 123. Of walking upon the Water, *V.* 2. *p.* 353. Of Ships ſwimming under Water, 359. Waters of the World, See *Oceans* in *O*, and *Rivers* in *R*.

Weather-Glaſſes, *V.* 1. *p.* 125. Change of Weather preſaged by Beaſts, *V.* 2. *p.* 6.

Weights and Meaſures of all Countries, *V.* 1. *p.* 391.

Weights to weigh Gold Coin firſt ordained, *V.* 1. *p.* 228.

Weſtminſter-Hall Built, *V.* 1. *p.* 217. Abbey Built. See *Church* in *C*.

Whales, conſecrated, to what God, *V.* 1. *p.* 60. Yield Oyl and Whalebone, *V.* 2. *p.* 6, 464. Their ſize, 463. How taken, 464.

Wheat at 6 *d. per* Buſhel, when, *V.* 1. *p.* 234.

Wheat-Meaſure, *V.* 1. *p.* 399.

Whitehall Built, *V.* 1. *p* 235. Burnt, 245.

Winds, V. 1. p. 434. Points of the Compaſs, *V.* 2. *p.* 211, 494, 496. How painted, 437.

Windſor-Caſtle. See *Caſtle* in *C*.

Wiſdom, what, *V.* 1. *p.* 3, 39, 44.

Wit, *V.* 1. *p.* 13, 14.

Witchcraft, V. 1. p. 230, 437. V. 2. p. 338.

Wolſey (Cardinal) *V.* 1. *p.* 235. *V.* 2. *p.* 308, 315.

Wolves, in *England*, how got rid of them *V.* 1. *p.* 212.

Women, V. 1. p. 41, 42, 94, 229, 487, &c. 512. V. 2. p. 361.

Wool, V. 1. 148. How Numbred, 399.

Worceſter, V. 1. p. 241.

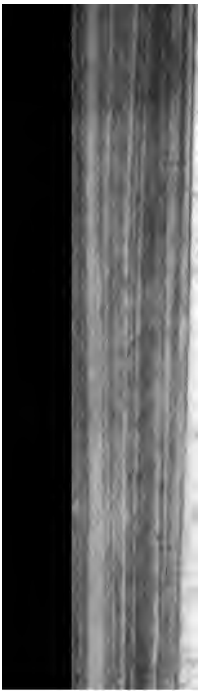
Works, before Juſtification, *V.* 1. *p.* 80. Of Supererogation, *ibid.* Of good Works, 79. Works loſt. See *Hiſtory* in *H*.

World, the Syſtem thereof, by whom invented, *V.* 1. *p.* 7. Opinion thereof, 13, 94. By whom ſaid to be made by Angels. 94. Thirty Worlds, *ibid.* How divided, 114. *V.* 2. *p.* 253. Its Creation, *V.* 1. *p.* 115. Its Duration, *ibid.* Of the World being but one, 511. If filled with Sand, what Number of Grains it would amount to, *V.* 2. *p.* 134.

Wound, of a Tin Bullet dangerous, *V.* 2. *p.* 33. Wounds how cured 35.

Writing Hands of the *Jews* of *Germany* and *Spain*, V. 2. p. 54, 55. Manuſcript Performances, 160, 163. Points for Writing, 61.

Writs of Law, *V.* 1. *p.* 340. Original and Judicial, 344. 346.



Zenith and *Nadir*, V. 2. p. 256
Zetetici, V. 1. p. 10.
Zodiack, V. 1. p. 50, 111, 132. V
Zones, V. 1. p. 113, 131, 133.

ADVERTI

AS to the Table, the READER if he wants to find any part *Diſtempers* incident to the Body them ſeverally Entered in the T find any particular Poet, Hiſtori look for Poets in general, and Hi particular Perſon. So of any pa in any Science, *&c.* he will not fi in the Table; but if he pleaſes t Book, and the proper Science ſu then eaſily find them out with

BOOKS Printed for G. Sawbridge, *at the* Three Flower de Lys *in* Little-Brittain.

Books now in the Preſs.

THE Memorable Things of *Socrates*; written by *Xenophon*, in Five Books. Trannated into *Engliſh*. To which is prefix'd the Life of *Socrates*, written in *French* by Monſieur *Charpentier*, a Member of the *French* Academy, tranſlated likewiſe into *Engliſh*, and the Life of *Xenophon* collected from ſeveral Authors, together with ſome Account of his Writings. Price Bound 6 *s.*

T. Lucretius Carus, his Six Books of the Nature of Things, tranſlated into *Engliſh* Verſe. By *Tho. Creech*, M. A. formerly Fellow of *Wadham*, and afterwards of *All-Souls* College in *Oxford*, with large Annotations. Printed after the manner of the Books *Cum Notis Variorum*. Being a compleat Syſtem ofthe Epicurean Philoſophy. *N. B.* Several Hundred Verſes that were not formerly tranſlated, will be ſupplied in this Edition. The whole will be two Volumes in Octavo, and ſome few printed upon a ſuperfine Royal Paper for the Curious.

The Eccleſiaſtical Hiſtories of *Socrates*, *Sozomen*, and *Theodorit*, &c. faithfully Abridged from the Originals. By *Sam. Parker*, Gent. the ſecond and laſt Part, which compleats the Whole. Price bound, 5 *s.* The former Volume the ſame Price, and his Abridgment of *Euſebius* 3 *s.* 6 *d.* *Tully* of Old Age, by the ſame, 1 *s.* 6 *d.*

Pharmacopœia Ludoviciana, Ceu Medicamentorum Sylloge quæ in promptu aſſervanda velit Clariſ. Daniel Ludovicus Medicus Ducal. Sax. Gothan. in Libro de Pharmacia Moderno ſeculo applicanda, & ad omnes Medendi Intentiones ſufficientia exiſtimavit, Alphabetice diſpoſita, una cum Viribus & Doſibus, Remediorum Morborumque Indicibus annexis. Price 1 *s.* 6. *d.* in Sheep.

Ovid's Triſtia, in *Engliſh* Verſe, Price bound, one Shilling.

FOLIO's.

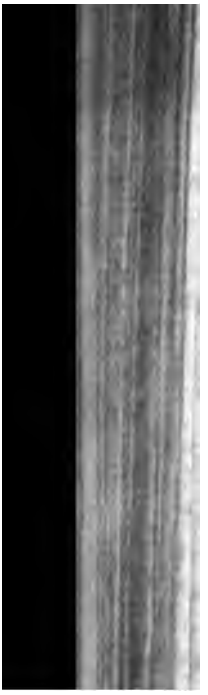
of all, eſpecially the unlearned, wh
ginal Languages, Hebrew and Gre
were firſt written; and may be unto
ſters of Families, Private Chriſtians
and Commentary on all the Scriptu
and worthy Man of God, Mr. *Tho*
Word at St. *George*'s in *Canterbury*,
there, and continued by Mr. *John E*
larged with a ſixfold Addition: I
Words, with their ſeveral Acceptati
mer Editions. II. Of many more
Words, mentioned and to be foun
Number of hard and difficult Phra
former Impreſſions; with a farther
therein ſet down. IV. Of the Ir
Names of Men, Women, Countries
&c. mentioned in the Holy Scriptu
Properties of ſuch Beaſts, Fowls, I
Seeds, Stones, *&c.* as are named
Readings ſet in the Margent of the
Extracted out of the moſt approve
Modern, eſpecially *Petri Ravanelli*,
in this Eighth Edition very much
one Compleat Alphabetical Dictio
and induſtrious Pains of *Andrew S*

Concerning the Right of Succeſſion to the Kingdom of *England*, in two Books; againſt the Sophiſms of one *Parſons* a *Jeſuit*, who aſſum'd the Counterfeit Name of *Doleman*; by which he endeavours to overthrow not only the Rights of Succeſſion in Kingdoms, but alſo the Sacred Authority of Kings themſelves. By the Eminently Learned and Judicious Sir *Thomas Craig* of *Riccartoun*, (the Celebrated Author of the *Jus Feudale*) Written Originally in *Latin* above 100 Years ſince by the Author, and now faithfully tranſlated into *Engliſh*, with a large Index of the Contents, and a Preface by the Tranſlator. Price Bound, 12 *s.*

A new *Spaniſh* and *Engliſh* Dictionary: Collected from the beſt *Spaniſh* Authors, both Antient and Modern. Containing ſeveral thouſand Words more than any other Dictionary; with their Etymology; their proper, figurative, burleſque and cant Significations; the common Terms of Arts and Sciences; the proper Names of Men; the Surnames of Families, and an Account of them; the Titles of the Nobility of *Spain*; together with its Geography, and that of the *Weſt-Indies*; with the Names of ſuch Provinces, Towns and Rivers in other Parts which differ in *Spaniſh* from the *Engliſh*. Alſo above two Thouſand Proverbs literally Tranſlated, with their Equivalents, where any could be found; and many Thouſands of Phraſes and difficult Expreſſions explain'd. All the Words throughout the Dictionary Accented, for the aſcertaining of the Pronunciation. To which is added, a copious *Engliſh* and *Spaniſh* Dictionary. Likewiſe a *Spaniſh Grammar*, more complete and eaſy than any hitherto extant: Wherein the *Spaniſh* Dialogues that have been publiſh'd are put into proper *Engliſh*. The Whole by Captain *John Stevens*. 1 *l.* 5 *s.* the common Paper Bound.

The Academy of Armory: or, a Diſplay of Heraldry. Being a more eaſy Way to attain the Knowledge thereof, than hath been hitherto publiſh'd by any. Containing the ſeveral Variety of created Beings, and how born in Coats of Arms, both Foreign and Domeſtick. With the Inſtruments uſed in all Trades and Sciences, together with their Terms of Art: Alſo the Etymologies, Definitions, and Hiſtorical Obſervations on the ſame, explicated and explained according to our Modern Language. Very uſeful for all Gentlemen, Scholars, Divines, and all Perſons that deſire the true Knowledge of any Art or Science. By *R. H.* Gentleman Sewer in Extraordinary to King *Charles*, and ſometimes Deputy to the Kings of Arms. Price Bound, 1 *l.*

The



Dutch, or *Saxon*, mark'd with
underſtanding their Original.

The compleat Works of that E
Mr. *Iſaac Ambroſe*, conſiſting of
Prima, *Media*, *& Ultima:* or,
Things. Wherein is ſet forth: I.
or the New Birth. II. The Pr
Means, Duties, Ordinances, both
nuance and encreaſe of a godly Li
Man's Miſery, in his Life, Deat
As alſo of God's Mercy, in ou
With a Sermon added, concernin
ing unto Jeſus, as carrying on t
tion. War with Devils; Miniſtra
Angels. Price Bound, 1 *l.*

Brownlow Latine *Redivivus:* A
clarations, Informations, Pleas ir
cations, Rejoynders, Demurrers,
(now in Uſe) in perſonal and m
firſt and ſecond Parts of the Dec
chard Brownlow, Eſq; late Chief J
Common-Pleas (unskilfully turn'd
the Years 1653, and 1654. Now
ginal Language; with Additions
dents, inſerted under every Title:

QUARTO's.

THE Works of the Reverend and Learned Mr. *John Gregory*, M. A. of *Chriſt-Church, Oxon.* In two Parts: The Firſt containing Notes and Obſervations upon ſeveral Paſſages in Scripture. The Second his *Poſthuma*; being divers learned Tracts upon various Subjects. The 4th Edition corrected. Price Bound, *6 s.*

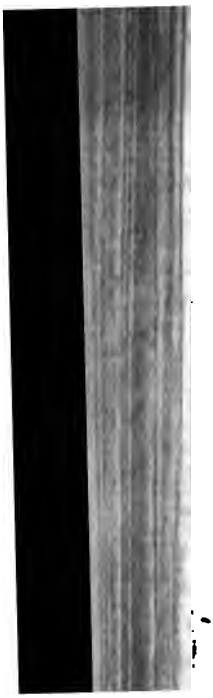
The Art of Dialling, perform'd Geometrically, by Scale and Compaſſes: Arithmetically, by the Canons of Sines and Tangents: Inſtrumentally, by a Trigonal Inſtrument. The Geometrical Part whereof is performed by Projecting of the Sphere in *Plano*, upon the Plane it ſelf; whereby not only the Making, but the Reaſon alſo of Dials is diſcovered. A ſecond Way of Geometrical Dialling very eaſy, plain and univerſal. The 4th Edition with Copper Plates. To which is added, a Supplement; ſhewing, how by Scale and Compaſſes to inſcribe ſuch Circles of the Sphere into Sun Dial-Plans, that ſhall ſhew (beſides the Hour of the Day) the Diurnal Motion of the Sun; his Place in the *Zodiack*; the Time from his Riſing and Setting; *Babylonian*, *Italian*, and *Jewiſh* Hours; the Point of the Compaſs upon which the Sun is at any time of the Day, and the Proportions of Shadows to their Heights. Alſo, a general and eaſie Way to Project Hour-Lines upon all kind of Superficies, without any regard had to their ſtanding. And, how from a Glaſs Horizontally placed in the Soil of a Window, to reflect Hours upon any Superficies. By WILLIAM LEYBOURNE, *Philomath.* Price Bound, *3 s.*

OCTAVO's.

Engliſh Proverbs, with Moral Reflections, familiarly accommodated to the Humour and Manners of the preſent Age. The Second Edition. To which is added, The Union Proverb, occaſion'd by the *French* Expedition to *Scotland*, and ſeveral other Proverbs never before Printed: By *Oſwald Dykes*, Gent. formerly of *Queens-College*, *Oxon*; and *Amanuenſis* to Sir *Roger L'Eſtrange*. Price Bound, *5 s.*

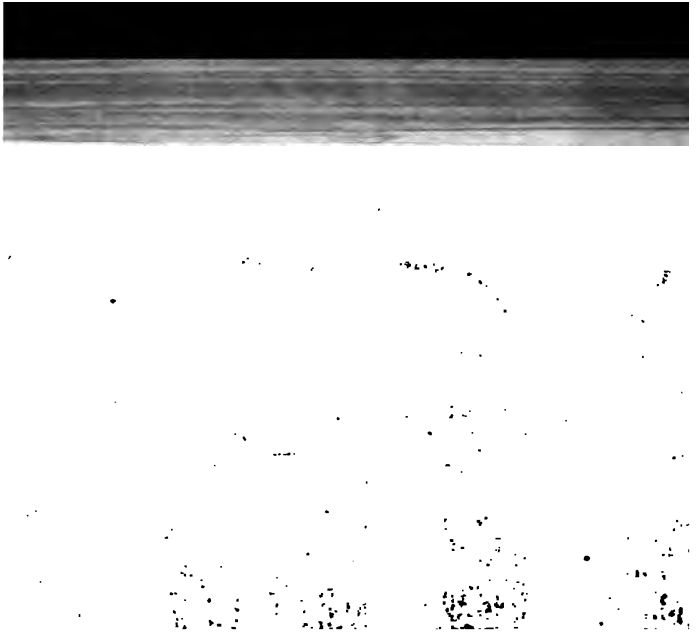
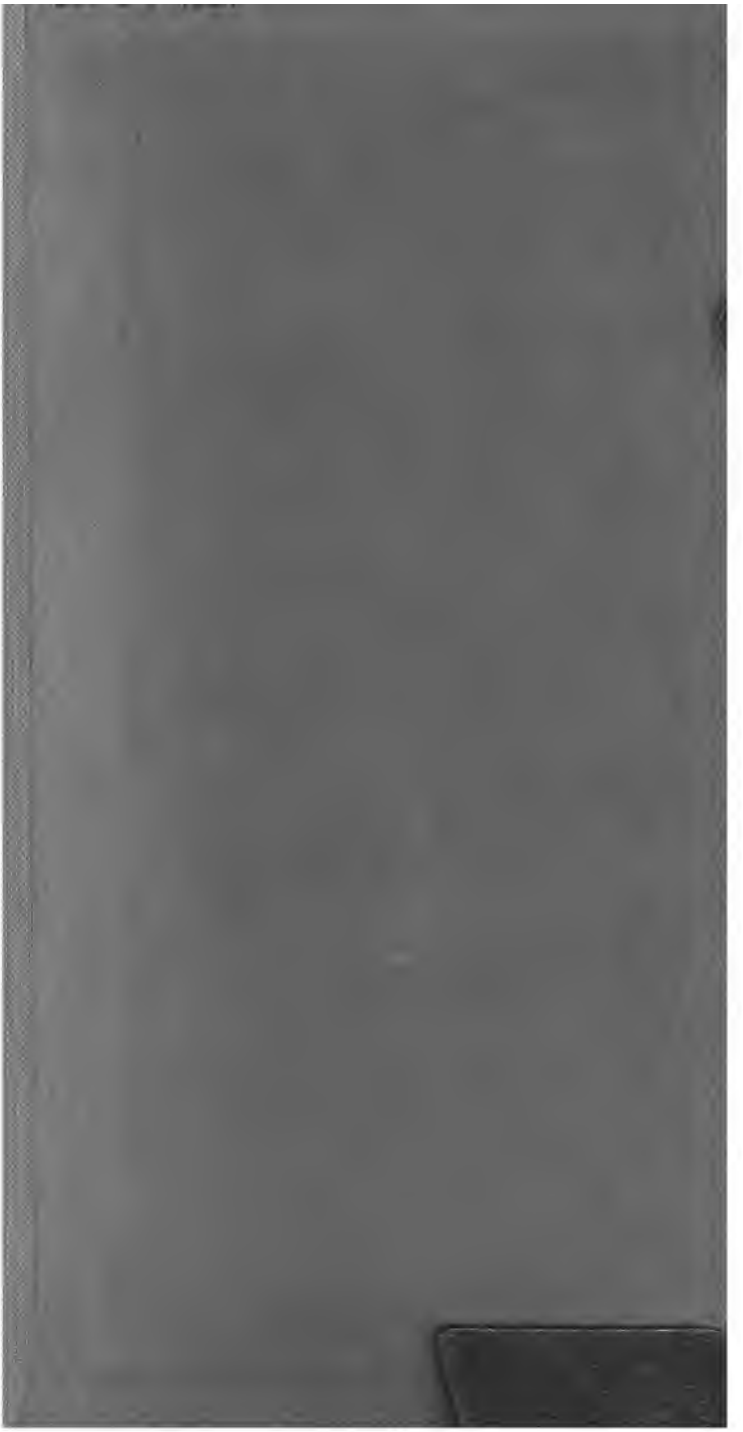
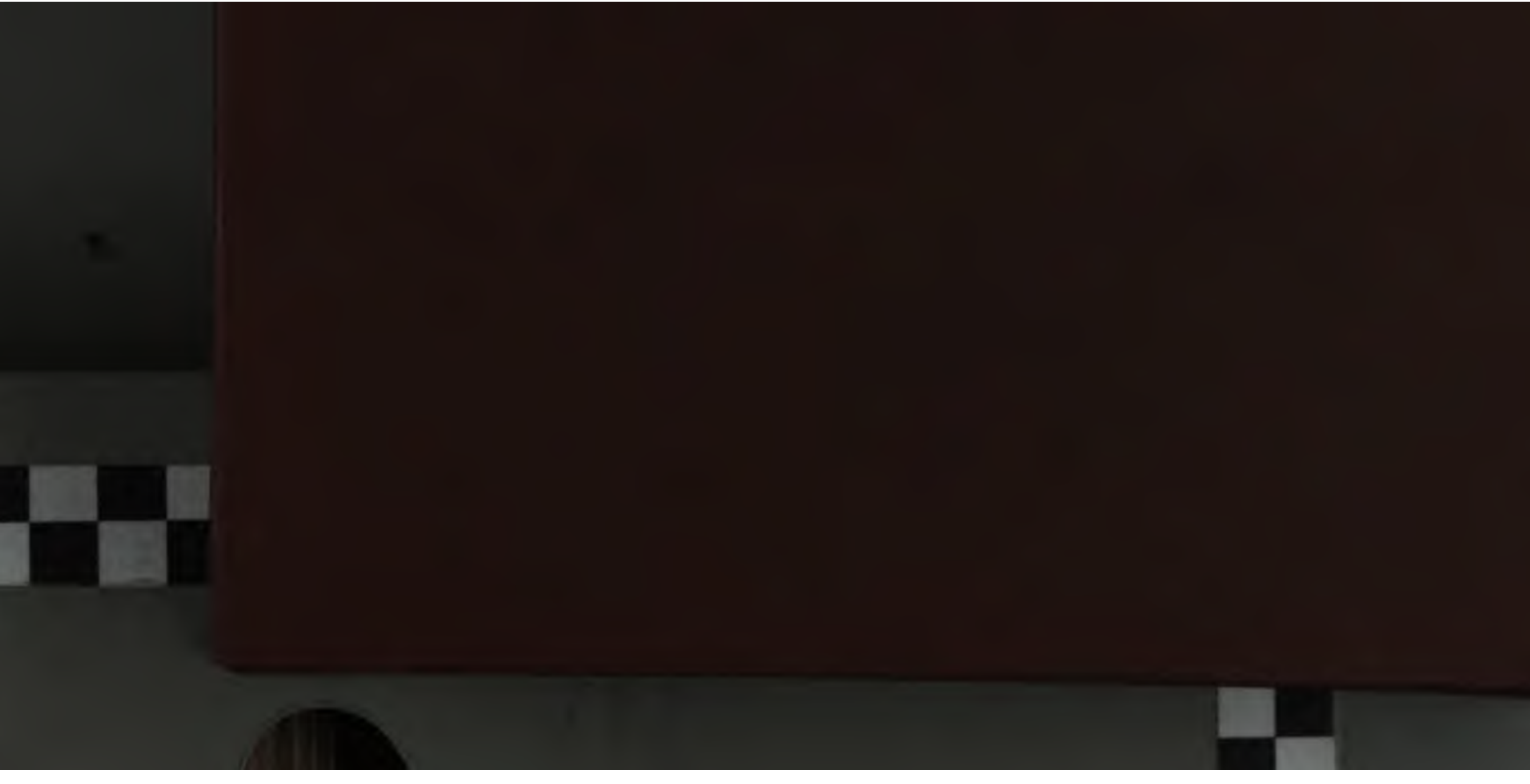
Poems on ſeveral Occaſions. With Imitations from *Horace*, *Ovid*, *Martial*, *Theocritus*, *Bachylides*, *Anacreon*, &c. To which is prefix'd a Diſcourſe on Criticiſm, and the *Liberty* of *Writing*. In a Letter to a Friend. By *Samuel Cobb*, M. A. The Third Edition. To which is added, Poems on the Duke of *Marlborough*, Prince *Eugene*, the Electoral Prince of *Hanover*, with other Poems. Never before Printed. Price Bound, *3 s.* and *6 d.*

Remarks



tion. *Price* bound 6 s.

A Second Volume of the Writi
Born-Engliſh-Man. Some where
rected and enlarged by the Au
bound 6 s.

A Critical Hiſtory of the Doctr
and Evil of the Church from *Ada*
Giving an Account of the Origin
cient *Pagans*, as far as they relate
ten in *French* by Mr. *Pstrr Jurieu*,
liſh. In two Volumes. *Price* bour

A Collection of Original Letter
the Earl of *Sandwich*, the Earl of
dolphin, during their Embaſſies in
and the moſt memorable Affairs
laid open. Together with ſeveral
of *Auſtria*, the Conde *de Peneran*
there. As alſo a Treatiſe by my
Advantages of a nearer Union with
Sir *William Godolphin*, about the W